KONGUNADU ARTS AND SCIENCE COLLEGE

(AUTONOMOUS)

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Coimbatore – 641 029

DEPARTMENT OF INFORMATION TECHNOLOGY

QUESTION BANKS

SUBJECTS

S.No	Name of the Subject
1.	Object Oriented Programming With C++
2.	Client/Server Computing
3.	Computer Organization And Architecture
4.	C Programming
5.	Data Structures And Algorithms
6.	Data Mining
7.	Embedded Systems
8.	Information Security
9.	Java Programming
10.	Microprocessor, Pc- Hardware And Interfacing
11.	Mobile Computing
12.	Operating Systems
13.	Principles Of Data Communications And Network
14.	Open Source Tools
15.	Python Programming
16.	Relational Database Management System And Oracle
17.	Software Engineering
18.	Visual Basic .Net

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QUESTION BANK

SUBJECT CODE: 18UIT2C3
TITLE OF THE PAPER: OBJECT ORIENTED PROGRAMMING WITH C++
DEPARTMENT OF INFORMATION TECHNOLOGY

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SECTION A

1. C++ was developed by
   a) Dennis Ritchie   b) Bjarne Stroustrup   c) Ken Thompson   d) Balagurusamy
2. Write the name of the operator >>
   a) get form   b) put to   c) insertion   d) extraction
3. In c++, the main function returns the default data type
   a) Float   b) void   c) int   d) char
4. Which is a collection of similar objects?
   a) Class   b) Function   c) Data   d) Array
5. A _____ is grouping of object having identical properties.
   a) class   b) abstraction   c) inheritance   d) polymorphism
6. New operator is used to
   a) Allocates the memory   b) Release the memory
   c) create an object   d) None of the above
7. Object may communicate through
   a) Class   b) Function   c) Data   d) Array
8. The object oriented programming feature Inheritance provides
   a) Reusability   b) Error detection   c) Easy access   d) Function
9. A symbol which is used to perform an operation is called
   a) Operator   b) Variable   c) Identifier   d) Constant
10. Wrapping up of data and functions in a single unit is
    a) Encapsulation   b) Inheritance   c) Polymorphism   d) Class
11. Object Oriented Programming follows the approach in program designing is
    a) Top-down   b) Bottom-up   c) Structured   d) Both (a) and (b)
12. The smallest individual unit in a program is called
    a) Function   b) Token   c) Record   d) File
13. Which process is used to create a new class from the existing class?
    a) Encapsulation   b) Polymorphism   c) Inheritance   d) Functions
14. Using a single function name to perform different types of tasks is known as
    a) Polymorphism   b) Dynamic binding   c) Function overloading   d)Inheritance
15. The feature which provides an alternate name to the existing variable is known as
    a) Function   b) Recursion   c) Inline   d) Reference
16. The cin and cout objects require the header file to include
    a) iostream.h   b) iomanip.h   c) conio.h   d) fstream.h
17. The manipulator setwidth( ) is used to set
    a) decimal places   b) number of digits   c) field width   d) flag
18. The : : is known as
    a) scope access operator   b) double colons   c) manipulator   d) precision
19. The procedure of representing essential features without including background details
    a) Class   b) abstraction   c) inheritance   d) polymorphism
20. The insertion operator is
    a) >>   b) <<   c) *   d) &
21. The member function defined inside the class are treated
    a) Static   b) inline   c) friend   d) private
22. When a variable is declared as static it is initialized to
    a) zero   b) one   c) two   d) Garbage

23. Bit fields provides exact amount of the storage of values in terms of
    a) bytes   b) bits   c) information   d) data
24. The access specifier public used in a class is terminated by
    a) :   b) ,   c) ;   d) ( )
25. By default, The members of a class are
    a) public   b) private   c) protected   d) none
26. A non-member function that can access the private data of the class is known as
    a) Friend   b) static   c) member   d) library
27. Destructor is preceded by the operator
    a) ~   b) :   c) =   d) ;
28. Constructor is executed when the
    a) object is created   b) object is destroyed   c) class is declared   d) class is destroyed
29. The destructor is executed when
    a) object goes out of scope   b) object is not used   c) object contains nothing   d) none
30. When memory allocation is essential, the constructor makes implicit call to
    a) new operator   b) malloc( )   c) memsell   d) ram
31. Constructors are declared only in the access specifier
    a) Private   b) public   c) protected   d) none
32. In C++, the declaration of functions and variables are collectively called
    a) class members   b) function members   c) object members   d) member variables
33. The variables declared inside the class are known as data members and functions are known as
    a) data functions   b) inline functions   c) member functions   d) member variables
34. The member variable is initialized to zero when the first object of its class is created where no other initialization is permitted.
    a) friend   b) static   c) public   d) private
35. A constructor that accepts no parameters is called the
    a) default constructor   b) parameterized constructor   c) implicit constructor   d) null constructor
36. The constructors that can take arguments are called
    a) default constructor   b) parameterized constructor   c) implicit constructor
    d) argument constructor
37. Destructor is a member function whose name is same as the class name but is preceded by a
    a) tilde   b) hash   c) dot   d) dollor
38. Which of the following two entities (reading from Left to Right) can be connected by the dot operator?
    a) class member and a class object.   b) A class object and a class.
    c) A class and a member of that class.   d) A class object and a member of that class.
39. The object is declared outside all function bodies is known as
    a) Global   b) local   c) variable   d) scope access
40. The object is declared inside all function bodies is known as
    a) Global   b) local   c) variable   d) scope access
41. In Inheritance, The existing classes are known as
    a) base classes   b) derived classes   c) inheritance   d) both
42. The relationship between base and derived class is known as
    a) kind of relationship   b) reusability   c) access specifiers   d) visiblity
43. Type of inheritance between one base and derived class is known as
    a) Single   b) multilevel   c) multiple   d) hybrid
44. When two or more base classes are used for derivation is a type of inheritance

a) single   b) multilevel   c) multiple   d) hybrid
45. When a single base class is used for the derivation of two or more classes is known as _
    a) hierarchical   b) multilevel   c) multiple   d) hybrid
46. When a class is derived from another derived class is known as the inheritance of
    a) hierarchical   b) multilevel   c) multiple   d) hybrid
47. The combination of one or more type of inheritance is known as
    a) hierarchical   b) multilevel   c) multiple   d) hybrid
48. Giving special meaning to an operator is
    a) Abstract operator   b) operator definition c) operator overload   d) special operator
49. Which operator cannot be overloaded?
    a) : :   b) ( )   c) ->   d) [ ]
50. The duplicate of inherited members due to the multiple paths can be avoided by making
    the common base class as
    a) virtual   b) derived   c) abstract   d) duplicate
51. Operator overloading is a type of polymorphism
    a) Compile time   b) Run time   c) Error time   d) None of these
52. The class without object is called
    a) Virtual class   b) Abstract class   c) Base class   d) Derived class
53. The overloaded operator must have at least number of operands
    a) 2   b) 3   c) 4   d) 1
54. How many operands are used in operator overloading function when a unary operator is
    overloaded using member function?
    a) 2   b) 3   c) 0   d) 1
55. How many operands are used in operator overloading function when a unary operator is
    overloaded using friend function?
    a) 2   b) 3   c) 0   d) 1
56. How many operands are used in operator overloading function when a binary operator is
    overloaded using member function?
    a) 2   b) 3   c) 0   d) 1
57. How many operands are used in operator overloading function when a binary operator is
    overloaded using friend function?
    a) 2   b) 3   c) 0   d) 1
58. The unary operator _____ can be used as prefix or suffix with the function.
    a) ++   b) **   c) +   d)-
59. The friend function can be called without using
    a) object   b) class   c) function   d) all the above
60. In multilevel inheritance, the middle class acts as
    a) base class as well as derived class b) only base class   c) only derived class
    d) variable
61. The allocation of memory during program run time is called the memory allocation of
    a) static   b) dynamic   c) pointer   d) none of the above
62. The deference operator is
    a) *   b) &   c) !   d) #
63. The address operator is
    a) *   b) &   c) !   d) #
64. The delete operator is used for memory
    a) allocates b) deallocates c) destroys   d) create
65. The function malloc( ) is used for memory
    a) Allocation b) deallocates c) destroys   d) create

66. An object can be created at run-time, such object is called
    a) dynamic   b) static   c) new   d) delete
67. The variable which contains the address of an object
    a) Function   b) Pointer   c) This   d) Array
68. The keyword which is used to represent an object that invokes a member function
    a) Function   b) Pointer   c) This   d) Array
69. Run time polymorphism is
    a) Virtual function   b) Function overloading   c) Operator overloading   d) this
70. The object oriented programming feature One name many forms is called as
    a) This   b) Pointer   c) Polymorphism   d) Virtual function
71. The input from the keyboard goes into the program using
    a) Output stream   b) IO stream   c) Input stream d) Stream buffer
72. The interface which is used to the physical devices through buffer is
    a) Output stream   b) IO stream   c) Input stream d) Stream buffer
73. The built in function available in iostream.h used to get a character from the keyboard is
    a) Put()   b) get()   c) get line()   c) write()
74. The formatting flags are available in ios class without the field
    a) Byte   b) Bit   c) Data type   d) Float
75. The predefined function used to reset the flag
    a) setw()   b) unsetf() c) setfill()   d) setf()
76. A pure virtual function with which of the following
    a) no body   b) no syntax   c) complex constructs   d) none of these
77. Which is the operator is used to access the members of a class using pointer?
    a)   ->   c) .   c) &   d) *
78. Write the output of cout.width (10); cout.fill ('*'); cout<<"Hello";
    a) Hello*****   b) *****Hello   c) Hello   d) ***********
79. The array name itself is a
    a) Pointer   b) reference   c) variable   d) object
80. Array elements are stored in
    a) continuous memory location   b) different memory location
    b) CPU registers   d) none of the above
81. The extraction operators are defined in the class
    a) istream   b) ostream   c) iostream   d) none
82. The eof( ) stands for
    a) end of file   b) error opening file   c) error of file d) extraction of file
83. The data is stored in the devices
    a) Storage   b) Disk   c) Memory d) Hardware
84. Collection of records is
    a) File   b) Data c) Row d) columns
85. We can read and write the data in the file using the classes
    a) Base   b) Derived   c) Dynamic   d) Stream
86. File I/O uses an interface between program and files
    a) Input stream b) Output stream   c) File stream   d) Stream
87. The stream which is used to read the data from the file
    a) Class   b) Input   c) Output   d) Stream buffer
88. A file can be opened in_____ ways.
    a) 3   b) 4 c) 5 d) 2
89. The function moves the get pointer to a specified location is
    a) Seekp() b) Seekg() c) tellg() d) tellp()

90. The arguments that are supplied at the time of invoking the program is called
    a) Parameterized   b) argc   c) argv   d) Command line
91. The generic classes and functions are defined by using
    a)   Parameters   b) Prototype   c) Templates d) Array
92. The file operation is completed, it should be closed by using the function_____.
    a) open()   b) close()   c) write()   d) read()
93. The function which is used to open more than one file in the program is
    a) Open()   b) close()   c) write()   d) read()
94. With the same stream object we can open number of files with open() function.
    a) Single   b) only two   c) multiple   d) zero
95. Eof() returns the value if the end-of-file condition is encountered is
    a) Non-zero value   b) zero   c) error   d) string
96. What is use of eof() ?
    a) Returns true if a file open for reading has reached the next character.
    b) Returns true if a file open for reading has reached the next word.
    c) Returns true if a file open for reading has reached the end.
    d) Returns true if a file open for reading has reached the middle.
97. offset counted from the current position using ?
    a) ios::curr   b) ios::cr   c) ios::cur   d) ios::current
98. Which functions allow to change the location of the get and put positions?
    a) sg() and sp()b) sekg() and sekp()   c) gog() and gop()   d) seekg() and seekp()
99. ios::trunc is used for ?
    a) If the file is opened for output operations and it already existed, no action is taken.
    b) If the file is opened for output operations and it already existed, its previous content
        is deleted and replaced by the new one.
    c) If the file is opened for output operations and it already existed, then a new copy is
        created.
    d) None of above
100.   Which among is used for positioning relative to the beginning of a stream ?
    a) ios::start   b) ios::beg   c) ios::begin   d) ios::beginning

Section B

1. Explain in detail about Procedure oriented programming

2. Explain in detail about Object Oriented Programming

3. Write notes on Benefits and Applications of OOPs

4. Explain the Structure of a C++ program

5. What are the advantages of new operator over malloc( ) operator.

6. What are inline functions? Explain

7. Explain the recursion? Explain with example

8. What is function overloading? Explain

9. Write a program to calculate the area of different shapes using function overloading

10. Explain the concept of default arguments with example

11. Write a program to find the factorial of a number

12. What is type casting? Explain about implicit and explicit typecasting

13. How will you define a class? Explain the syntax

14. What are the rules for defining friend functions? Explain

15. How will you define friend function? Explain with example

16. Define constructors. Write the rules for defining a constructor

17. What is a destructor? Explain with example

18. Write a simple program to implement the concept of constructors

19. Write a simple program to implement the concept of destructors

20. What is operator overloading? Give the rules of operator overloading

21. Explain the syntax of operator overloading function

22. What is inheritance? Explain its types

23. Explain the rules for inheritance

24. Explain the concept of virtual base class

25. Explain the concept of abstract classes with example

26. What is a pointer? How will you create a pointer to a class?

27. Explain the concept of this pointer

28. Explain the usage of base class pointer and derived class pointers

29. List any 5 string functions with example

30. What is polymorphism? Explain its types

31. Explain conversion from class to basic type.

32. Explain conversion from class to class type.

33. Describe the use of public, private and protected visibility labels

34. Explain about input and output stream

35. With a diagram explain stream classes

36. How will you open a file? Explain its methods

37. What are the modes of opening a file? Explain

38. Write notes on get pointer and put pointer

39. How will you check EOF? Explain

40. How will you check errors in files ? Explain

41. What are command line arguments? Explain

42. What are sequential and random files

43. How will you read and write contents into sequential files?

44. How will you read and write contents in to random files?

45. Explain the concept of binary files with examples

46. What is exception handling? Explain

47. What are the types of exception? Explain

48. What are class templates? Explain the syntax of class template

49. What are function templates? Explain the syntax of function templates

50. Write a program to read the content of a file using command line arguments.

Section C

1. Explain the key concepts of OOP.

2. Discuss in detail about Formatted and Un-formatted I/O

3. Discuss about Object Oriented and Object based Programming Languages

4. Discuss about defining member function inside and outside the class

5. Explain in detail about different types of operators in C++

6. Explain in detail about Control structures in C++

7. Discuss about Looping structures in C++

8. Write a program to add two numbers using functions without arguments and without return types

9. Write a program to multiply two numbers using functions without arguments and with return types

10. Write a program to find the factorial of a numbers using functions with arguments and without return types

11. Write a program to find a factorial of a numbers using functions with arguments and with return types

12. Explain about classes and Objects

13. Write a program to implement the usage of classes and objects

14. Explain in detail about static data member with example

15. Explain about static member function with example

16. How will you pass objects as function arguments explain with example

17. Explain the concept of returning objects as arguments

18. Write a program to overload a binary operator using member function

19. Write a program to overload a binary operator using friend function

20. Write a program to overload a unary operator using member function

21. Write a program to overload a unary operator using friend function

22. What are the types of Constructors? Explain

23. Explain copy constructor with an example

24. Explain multiple constructor with an example

25. Write a program to implement the concept of single inheritance
26. Write a program to implement the concept of multiple inheritance
27. Write a program to implement the concept of multi-level inheritance
28. Write a program to implement the concept of hybrid inheritance
29. Explain with example about pointer to a array of classes
30. Discuss about array of pointers to class
31. How will you create a String object using string class? Explain
32. Explain the concept of Virtual functions with example
33. Explain the concept of pure virtual function with example
34. Explain the manipulator functions used for I/O formatting
35. Explain about file stream classes
36. Explain in detail about file I/O
37. Write a program to read and write contents into the file
38. Explain in detail about file pointes and their manipulations
39. Write a program to implement the file operations
40. Write a program using command line arguments to copy the contents of one file to another file with line numbers
41. Write a program to implement the concept of sequential files
42. Write a program to implement the concept of random files
43. Write a program to find a student record using random files
44. Explain the usage of try throw and catch statements
45. How will you detect an exception? Explain with example
46. Write a program to implement the concept of multiple catch statements
47. Write program to implement the class template with single argument
48. Write program to implement the class template with multiple argument
49. Write program to implement the function template with single argument
50. Write program to implement the function template with multiple argument

ANSWERS

1. b) Bjarne Strustrup
2. d) extraction
3. c) int
4. a) class
5. a) class
6. a) allocates the memory~
7. b) function
8. a) Reusability
9. a) operator
10. a) Encapsulation
11. b) Bottom-up
12. b) Token
13. c) Inheritance
14. c) Function overloading
15. d) reference
16. a) iostream.h
17. c) field width
18. a) scope resolution operator
19. b) abstraction
20. b) <<
21. b) inline
22. a) zero
23. b) bits
24. a) :
25. b) private
26. a) friend
27. A) ~
28. a)   object is created
29. a)   object goes out of scope
30. a) new operator
31. b) public
32. a) class members

33. c) member functions
34. b) static
35. a) default constructor
36. b) parameterized constructor
37. a) tilde
38. a) class member and a class object
39. a) Global

40. b) local
41. a) base classes
42. b) reusability
43. a) single
44. c) multiple
45. a) hierarchical
46. b) multilevel
47. d) hybrid
48. c) operator overload
49. a) ::
50. a) virtual
51. a) compile time
52. b) abstract class
53. d) 1
54. c) 0
55. d) 1
56. d) 1
57. a) 2
58. a) ++
59. a) object
60. a) base class as well as derived class
61. b) dynamic
62. a) *
63. b) &
64. b) deallocates
65. a) allocation
66. a) dynamic
67. b) pointer
68. c) this
69. a) virtual function
70. c) polymorphism
71. c) input stream
72. d) stream buffer
73. b) get()
74. b) bit
75. unsetf()
76. a) no body
77. a) ->
78. a) Hello*****
79. b) reference
80. a) continuous memory location
81. b) ostream
82. a) end of file
83. a) storage

84. a) file
85. d) stream
86. c) file stream
87. b) input
88. d) 2
89. b) seekg()
90. d) command line
91. c) templates
92. b) close()
93. a) open()
94. c) multiple
95. a) non-zero value
96. c) Returns true if a file open for reading has reached the end.
97. c) ios::cur
98. d) seekg() and seekp()
99. b) If the file is opened for output operations and it already existed, its previous content is deleted and replaced by the new one.
100.   b)ios::beg

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QUESTION BANK

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Kongunadu Arts & Science College (Autonomous)
Department of INFORMATION TECHNOLOGY
Question Bank
CLIENT/SERVER COMPUTING

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SECTION - A

1. Client and servers are separate entities that work together over a network.
   a. Physical   b. Logical   c. Scalability   d. Integrity

2. A server can service many clients at the same time & regulate their access to shared resources.
   a. Same   b. different   c. Physical   d. Logical

3. In which scaling means adding or removing clients from the workstations.
   a. Horizontal   b. Vertical   c. Scalability   d. Integrity

4. By what type of services are wanted by the client process.
   a. Provider   b. Consumer   c. Service   d. Shared resources

5. In which type of server, the client passes requests for file records over a network.
   a. File   b. database   c. object   d. web

6. In which server, the client passes SQL requests as messages.
   a. File   b. database   c. object   d. web

7. In which server, the client invokes remote procedures that resides on the server.
   a. Database   b. Transaction   c. groupware   d. web

8. Which is based on the stored procedures provided by the database vendors?
   a. TP Lite   b. TP Heavy   c. TP Monitors   d. OLTP Vendors

9. The Client/server application is written as a set of communicating objects.
   a. Object   b. web   c. file   d. database

10. By which client objects and server objects will communicate?
    a. OLTP   b. ORB   c. DCOM   d. HTTP

11. In which protocol, the client and servers communicate using an RPC like protocol.
    a. OLTP   b. HTTP   c. SMTP   d. FTP

12. It is the multi server building block implementation of client/server.
    a. Intergalactic   b. Small shops   c. tiny shops   d. post-scarcity

13. The building block that runs on the client side of the application.
    a. Client   b. Server   c. Middleware   d. Client/Server

14. By which element, the client runs on a component.
    a. OS   b. GUI   c. OOUI   d. DSM

15. The client/server architecture is suited for which environment.
    a. LAN   b. WAN   c. MAN   d. WWW

16. By which server addresses the management of semi-structured information.
    a. Database   b. Groupware   c. Object   d. Web

17. There is a many to one relationship between clients and server in client/server system.
    a. Asymmetric   b. Encapsulation   c. Service   d. Transparency

18. By which mechanism, Clients and servers are loosely coupled systems that interact each other.
    a. Message-based   b. Scalability   c. Transparency   d. Shared resources

19. In client/server system, the server code and data are centrally maintained.
    a. Scalability   b. Integrity   c. Message-based   d. Service

20. By which is the traditional form of client/server system.
    a. File   b. Fat Client   c. Fat Server   d. Object
21. Which of the following is the part of an OS?
    a. Base   b. Extended   c. Priority   d. Preemption
22. Which management is the best in Multitasking OS?
    a. Threads   b. Task   c. Semaphores   d. Protection
23. The mechanisms that allows independent processes to exchange and share data.
    a. IPC   b. Threads   c. Preemption   d. Priority
24. The system must support very large programs and data objects in base services.
    a. Local   b. Remote   c. Memory   d. Semaphores
25. The services that provide flexible access to shared information in an OS.
    a. Extended   b. TP Monitors   c. NOS   d. RPC
26. The multiprocessing treats all processors as equals.
    a. Master   b. slave   c. Symmetric   d. Asymmetric
27. The Applications are client-centric.
    a. Client   b. Server   c. Client/Server   d. Middleware
28. In Client Anatomy, how many types of clients are classified?
    a. 3   b. 4   c. 5   d. 6
29. The metaphor is used to provide information at our fingertips.
    a. GUI   b. Non-GUI   c. OOUI   d. OLE
30. By which transparency, the users should not include the information in the resources name.
    a. Location   b. Namespace   c. Logon   d. Failure
31. The transparency should be able to provide a single password that works on all servers.
    a. Logon   b. Replication   c. Administration d. Local/Remote
32. The services that allows network managers to monitor user activities.
    a. Authentication   b. Authorization   c. Audit Trails   d. Encryption
33. The abbreviation for MOM.
    a. Message Object Method   c. Master Oriented Method
    b. Message Oriented Middleware   d. Middleware Oriented Message
34. The process of using the directory to find a server at run time.
    a. Binding   b. Dynamic Binding c. Automatic Binding d. Static Binding
35. The abbreviation for DAD.
    a. Distributed Application Development   c. Data Application Development
    b. Distributed Application Data   d. Data About Data
36. The user should deal with a single system management interface.
    a. Logon   b. Replication   c. Administration d. Local/Remote
37. The user should be able to use the same naming conventions to locate any resource on the network.
    a. Location   b. Namespace   c. Logon   d. Failure
38. The user should be able to work with any resource on the network.
    a. Logon   b. Replication   c. Administration d. Local/Remote

39. This causes a periodic propagation to all the replicas of all changes made on the master.
    a. Skulking   b. Immediate   c. Global directory   d. Distributed
40. This causes any update to the master to be immediately shadowed on all replicas.
    a. Skulking   b. Immediate   c. Global directory   d. Distributed
41. By which is used to manipulate information collected in tables.
    a. Physical   b. Logical   c. Commands   d. Integrity
42. It is used to define simple tables, complex objects, indexes and access control.
    a. Data definition   b. Data Integrity   c. Adhoc Queries   d. Database
43. The user can defines to restrict the values of what goes into the table columns.
    a. Static SQL   b. Dynamic SQL   c. Commands   d. Constraints
44. It is used to solve the SQL parts explosion problem.
    a. Recursive   b. Persistent   c. Framework   d. Foundation
45. A server manages the control and execution of SQL commands.
    a. SQL   b. SQL 89   c. SQL 92   d. SQL 3
46. This architecture protects the user from each other and it also protects the manger from the users.
    a. SQL Database   b. Process-per-client   c. Multithreaded   d. Hybrid
47. It provides the best performance by running all the user connections in the same address space.
    a. Multithreaded   b. Hybrid   c. SQL Database   d. Process-per-client
48. It is a named collection of SQL statements and procedural logic in the server database.
    a. Stored Procedure   b. SQL Query   c. Triggers   d. Rules
49. It provides a proprietary language called stored procedure language.
    a. Sybase   b. Oracle   c. Triggers   d. Informix
50. A special type of trigger that is used to perform simple checks on data.
    a. Triggers   b. Rule   c. Sybase   d. Oracle
51. The systems that are used to create applications in all walks of business.
    a. DSS   b. EIS   c. OLTP   d. TP
52. They are used to analyze data and create reports.
    a. OLTP   b. DSS   c. EIS   d. OLAP
53. It is more powerful, easy-to-use than the decision support systems.
    a. OLAP   b. DSS   c. EIS   d. OLTP
54. In client/server environment, that is the repository of data for decision-support processing.
    a. SQL   b. Database   c. Oracle   d. Data warehouse
55. The level of metadata describes the content of data to an information hound.
    a. System   b. Semantic   c. replication   d. information
56. It allows us to transmit the aggregations of data.
    a. Aggregates   b. Derived   c. Replicas   d. Subsets

57. It allows us to transmit only the rows and columns that are interest to our informational applications.
    a. Derived   b. Aggregates   c. Subsets   d. Replicas

58. It allows us to specify data that does not exist.
    a. Replicas   b. Derived   c. Aggregates   d. Subsets

59. The data manager manages the copying and distribution of data across databases.
    a. Replication   b. Directory   c. EIS/DSS   d. DBA

60. The information combines the functions of a technical directory and information navigator.
    a. Replication   b. Directory   c. EIS   d. DSS

61. A transaction is an indivisible unit of work.
    a. Atomicity   b. Consistency   c. Isolation   d. Durability

62. In this transaction, after executes a transaction, it must leave the system in a correct state.
    a. Atomicity   b. Consistency   c. Isolation   d. Durability

63. A transactions behavior is not affected by other transactions that execute concurrently.
    a. Atomicity   b. Consistency   c. Isolation   d. Durability

64. A transaction's effects are permanent after it commits.
    a. Atomicity   b. Consistency   c. Isolation   d. Durability

65. The transaction must be able to suspend itself and resume after shutdowns.
    a. CAD   b. ACID   c. Flat   d. Nested

66. The transactions are variations of sync points that make the accumulated work durable.
    a. Nested   b. Chained   c. Sagas   d. Transactions

67. This transaction will extend the chained transaction to rollback the entire chain.
    a. Nested   b. Chained   c. Sagas   d. Transactions

68. The transaction provides robust run-time environments support large-scale OLTP applications.
    a. OLAP   b. process   c. Transaction   d. TP Monitors

69. The management includes starting server processes, funneling, monitoring and load balancing.
    a. Process   b. Transaction   c. Business   d. Flat

70. The management that it guarantees the ACID properties to all programs that run under its protection.
    a. Process   b. Transaction   c. Business   d. Flat

71. The Groupware is a collection of technologies that allows us to represent complex processes that center around human activities.
    a. Client   b. Server   c. Client/server   d. Middleware

72. The workflows are used to automate business systems that have some policies and procedures.
    a. Routes   b. Rules   c. Roles   d. Process-Oriented

73. This Workflow deals with short-lived and unstructured work processes.
    a. Adhoc   b. Rules   c. Routes   d. Roles

74. This defines the path along which the object moves.
    a. Rules   b. Routes   c. Roles   d. Workflow
75. This defines that what information is routed and to whom.
    a. Workflow   b. Routes   c. Rules   d. Roles
76. This defines the job functions independently of the people who do it.
    a. Workflow   b. Routes   c. Rules   d. Roles
77. The splits are used to explode an object into many parts.
    a. And   b. Or   c. Route   d. Workflow
78. The splits are used to peel off a few parts from a group.
    a. And   b. Or   c. Route   d. Workflow
79. The joins allows certain members to rejoin the group.
    a. Route   b. Workflow   c. Or   d. And
80. The joins are used to group together objects as a group.
    a. Route   b. Workflow   c. Or   d. And
81. This provides a general-purpose naming scheme for specifying Internet resources using a string of printable ASCII characters.
    a. URL   b. HTML   c. HTTP   d.FTP
82. The Scheme tells the web browser which internet protocol to use when accessing a resource on a server.
    a. Protocol   b. Server name   c. Port number   d. Path name
83. This is usually an internet host domain name that identifies the site on which the server is running.
    a. Port number   b. Path name   c. Server name   d. Protocol
84. This identifies a program that runs on a particular server.
    a. Protocol   b. Server name   c. Port number   d. Path name
85. The resource starts with the forward slash after the host and port number.
    a. Port number   b. Path name   c. Server name   d. Protocol
86. They are non-case-sensitive commands surrounded by angle brackets.
    a. Text   b. GUI   c. Tags   d. HTML
87. This contains the URL of the external picture file or the name of a local file.
    a. Tags   b. OL   c. UL   d. SRC
88. This contains full hostname and filename of the target document.
    a. Absolute   b. Relative   c. Local   d. Anchor
89. This means that the target's hostname and starting directory for the path of the anchor tag.
    a. Absolute   b. Relative   c. Local   d. Anchor
90. The file resides on the client machine, not on the web server.
    a. Absolute   b. Relative   c. Local   d. Anchor
91. The HTTP consists of three text fields separated by white spaces.
    a. Request line   b. request header   c. entire body   d. HTTP methods
92. This field passes additional information about the request to the server.
    a. Request line   b. request header   c. entire body   d. HTTP methods
93. The client passes bulk information to the server.
    a. request header   b. Request line   c. entire body   d. HTTP methods

94. This includes within both request and response messages.
   a. General   b. Request   c. Response   d. Entity
95. This can only appear within request messages.
   a. General   b. Request   c. Response   d. Entity
96. This can only appear within response messages.
   a. General   b. Request   c. Response   d. Entity
97. This can only appear within request or response messages.
   a. General   b. Request   c. Response   d. Entity
98. This property specifies an input type, which may be either text or image.
   a. TYPE   b. NAME   c. VALUE   d. SELECT
99. This tag is used to create multiline data entry fields.
   a. TEXTAREA   b. SELECT   c. TABLE   d. CAPTION
100.   This is used to protect the private Intranets from the internet hordes.
   a. Encryption   b. Authentication   c. Firewalls   d. Repudiation

SECTION - B

1. What is Client/server? Explain any 5 characteristics of client/server.

2. Explain about the concept of file server.

3. Discuss about the concept of object server and web server.

4. Write short notes on client/server building blocks.

5. Explain about the concept of client/server for intergalactic enterprise.

6. Explain about the concept of fat servers or fat clients.

7. Discuss about the concept of client/server for a post-scarcity world.

8. Explain the concept of Inside the Building Blocks.

9. Discuss about the concept of client/server for small shops and departments.

10. Explain about the concept of Groupware server.

11. Explain about the anatomy of a server program.

12. What does a server need from an OS? Explain its base services.

13. Write short notes on Server Scalability.

14. Discuss about the Non - GUI Clients in client anatomy.

15. Explain about the concept of OOUI Clients.

16. Difference between GUI Verses OOUI.

17. What does Transparency Really mean?

18. Comparing the difference between MOM Verses RPC.

19. Write short notes on Remote Procedure Call.

20. Explain about the concept of Distributed Time Services

21. What does SQL do?

22. Explain about the concept of ISO Standards of SQL 89 and SQL 92.

23. Discuss about the concept of ISO Standards of SQL 3.

24. What does a Database server do?

25. Write short notes on Stored Procedure?

26. Difference between Stored Procedure verses Static and Dynamic SQL.

27. Discuss about the concept of Triggers and Rules.

28. Explain the concept of OLTP.

29. Discuss about the concept of Decision Support Systems.

30. Explain about the concept of Executive Information System.

31. Explain about the concept of ACID Properties.

32. Write about the Nested Transactions in Transaction Models.

33. What is a TP Monitor? Discuss about it.

34. Write short notes on TP Monitors and Transaction Management.

35. Difference between Transactional verses Non-Transactional Communications.

36. What is Groupware? How is groupware different from SQL Databases?

37. Write short notes on Workflow Models?

38. Explain the concept of Workflow Splits and Joins.

39. Discuss about the concept of Object Request Broker.

40. Explain about the Compound Documents.

41. What is a URL? Explain about it.

42. Explain about the concept of Hyperlinks.

43. Discuss about the concept of HTTP.

44. What does an HTTP Request look like?

45. What does an HTTP Response look like?

46. Explain about the concept of HTTP Methods.

47. Discuss about the concept of HTML 3.0 Tables.

48. Explain the concept of Web Security.

49. Discuss about the concept of the Internet and Intranets.

50. Explain about the concept of CORBA Object web.

SECTION - C

1. What is client/server? Explain in detail about the concept of characteristics of client/server.

2. Discuss in detail about the concept of File, Database and Transaction servers.

3. Discuss in detail about the concept of Groupware, Object and Web servers.

4. Explain in detail about any 4 types of servers.

5. What is client/server? Explain in detail about the concept of fat servers /fat clients.

6. Discuss in detail about the concept of client/server building blocks.

7. Illustrate the concept of client/server for tiny shops and nomadic tribes and client/server for small shops and departments.

8. Discuss in detail about the concept of Intergalactic enterprises and client/server for a post-scarcity world.

9. What is client/server? Explain in detail about the concept of inside the building blocks.

10. What is building block in client/server? Explain about the concept of client/server a one size fits all model.

11. What does a server need from an OS? Explain in detail about the base services.

12. Discuss in detail about the concept of Extended Services.

13. Elaborate the concept of Server Scalability.

14. Explain in detail about the Client Anatomy.

15. What does a client need from an OS? Explain in detail.

16. Discuss in detail about the concept of Client OS and its trends.

17. Illustrate the concept of Server OS.

18. Discuss in detail about the concept of Distributed Security Services.

19. Explain in detail about the concept of Remote Procedure Call.

20. Explain about the concept of Messaging and Queuing, the MOM Middleware.

21. Explain in detail about the ISO Standards of SQL 89 and SQL 92.

22. Discuss in detail about the concept of SQL Database Server Architectures.

23. Discuss in detail about the concept of OLTP, DSS & EIS.

24. Discuss about the comparison of Production Verses Informational Databases.

25. Explain in detail about the concept of Data Warehouse.

26. Discuss in detail about the concept of the mechanics of data replication.

27. Illustrate the concept of Stored Procedure, Triggers and Rules.

28. What does SQL do? Discuss about the concept of the ISO Standards of SQL 3.

29. Explain in detail about the concept of a database server.

30. What is a data warehouse? Explain about the concept of the elements of Data Warehousing.

31. Explain in detail about the concept of Transactional Models.

32. Discuss about the concept of the components of Groupware.

33. Discuss about the concept of Distributed Objects, CORBA Style.

34. Explain in detail about OMG's Object Management Architecture.

35. Explain about the concept of The Anatomy of a CORBA 2.0 ORB.

36. Discuss about the concept of Compound Documents.

37. Illustrate the concept of the Compound Document Framework.

38. Discuss in detail about the concept of the Limitations of the Flat Transaction.

39. Explain in detail about the concept of Transactional RPCs, Queues and Conversations.

40. Explain about the concept of the components of Groupware.

41. What is a URL? Discuss about the concept of the World's Shortest HTML Tutorial.

42. Discuss in detail about the concept of General Structure of an HTML Document.

43. What is HTTP? Discuss about the HTTP Data Representations.

44. Explain in detail about HTML 2.0's Web-based Forms.

45. Explain in detail about the concept of HTML 3.0 Tables.

46. Discuss in detail about the concept of CGI: The Server side of the web.

47. Illustrate the concept of Web Security.

48. Discuss in detail about the concept of Electronic Payments in HTTP.

49. Explain in detail about the Compound Documents and the Object Web.

50. Explain about the concept of the DCOM/OLE object web.

1. a	46. a	91. c
2. b	47. b	92. a
3. a	48. a	93. b
4. b	49. a	94. c
5. a	50. d	95. a
6. b	51. b	96. b
7. b	52. c	97. c
8. a	53. b	98. d
9. a	54. c	99. a
10. b	55. d	100. a
11. b	56. b	
12. a	57. a	
13. a	58. c	
14. b	59. b	
15. a	60. a	
16. b	61. b	
17. a	62. a	
18. a	63. b	
19. b	64. c	
20. b	65. d	
21. a	66. a	
22. b	67. b	
23. a	68. c	
24. c	69. d	
25. a	70. a	
26. c	71. b	
27. c	72. c	
28. c	73. d	
29. c	74. a	
30. a	75. b	
31. a	76. c	
32. c	77. d	
33. b	78. a	
34. b	79. b	
35. a	80. c	
36. c	81. d	
37. b	82. a	
38. d	83. a	
39. a	84. c	
40. b	85. c	
41. c	86. b	
42. a	87. c	
43. d	88. d	
44. a	89. a	
45. a	90. b	

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QUESTION BANK

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**TITLE OF THE PAPER: COMPUTER ORGANIZATION AND
ARCHITECTURE**

DEPARTMENT OF INFORMATION TECHNOLOGY

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Department of INFORMATION TECHNOLOGY

Question Bank

COMPUTER ORGANIZATION AND ARCHITECTURE

CONTENTS

SECTION - A

1. What is the base value for decimal number system?
   a. 2   b. 8   c. 10   d. 16
2. What is the base value for octal number system?
   a. 2   b. 8   c. 10   d. 16
3. What is the base value for binary number system?
   a. 2   b. 8   c. 10   d. 16
4. What is the base value for hexadecimal number system?
   a. 2   b. 8   c. 10   d. 16
5. Which number system uses alphabets as well as numerals?
   a. Binary   b. Octal   c. Decimal   d. Hexadecimal
6. How many bits are there in one nibble?
   a. 2   b. 4   c. 8   d. 16
7. What will be the output, if 1 as input to an inverter?
   a. 1   b. 0   c. A   d. Reverse of A
8. Which of the following binary numbers is equivalent to decimal number 24?
   a. 11011   b. 11000   c. 11111   d. 11001
9. What is the name of the first part in floating point representation?
   a. Integral   b. Fractional   c. Mantissa   d. Exponent
10. What is the name of the second part in floating point representation?
   a. Integral   b. Fractional   c. Mantissa   d. Exponent
11. What is the other name for Gray code?
   a. Cyclic   b. Acyclic   c. Inverse   d. Nibble
12. What will be the output for 110100 to Gray code?
   a. 101110   b. 101111   c. 110011   d. 101100
13. What will be the output for 0100 0011 1001 to decimal?
   a. 439   b. 239   c. 456   d. 478
14. What is the excess3 code of 14?
   a. 1100 0011 b. 0100 0111 c. 1000 0001 d. 0011 1011
15. What is the change of 1's complement?
   a. 0 to 1   b. 1 to 0   c. 1 to 1   d. 0 to 0
16. How to express decimal number 54 into BCD number?
   a. 01010100   b. 01000101   c. 00111000   d. 00111111
17. What will be the output of 199 decimal to binary?
   a. 10011   b. 10001   c. 10011   d. 11111
18. What will be the output for 101101 to Gray code?
   a. 111011   b. 111111   c. 100000   d. 000111
19. What is mean by NAND gate?
   a. AND + NOT   b. OR + NOT   c. Inverse of AND   d. Inverse of OR
20. What is mean by NOR gate?
   a. NOT + AND   b. NOT + OR   c. Inverse of AND   d. Inverse of OR
21. How many inputs and outputs does a full-adder have?
   a. 2,1   b. 2,2   c. 3,1   d. 3,2

3

22. What is the designator minterm of AB'CD?
    a. 4   b. 5   c. 11   d. 15
23. What is the function value of maxterm?
    a. 0   b. 1   c. -1   d. 2
24. Which circuit performs the addition of 2 bits?
    a. Half adder   b. Full adder   c. AND   d. OR
25. Which circuit performs the addition of 3 bits?
    a. Half adder   b. Full adder   c. AND   d. OR
26. What is the function value of minterm?
    a. 0   b. 1   c. -1   d. 2
27. What is the output of adder?
    a. Carry   b. Borrow   c. Sum   d. Difference
28. What is the output of subtractor?
    a. Carry   b. Borrow   c. Sum   d. Difference
29. What is the another name for k-map?
    a. venn   b. veitch   c. Data flow   d. square
30. What is the formation of 2 number of 1's in k-map?
    a. Pair   b. Quad   c. Octet   d. Square
31. What is the formation of 4 number of 1's in k-map?
    a. Pair   b. Quad   c. Octet   d. Square
32. What is the formation of 8 number of 1's in k-map?
    a. Pair   b. Quad   c. Octet   d. Square
33. What is the symbol used to group the 1 in don't care condition?
    a. D   b. O   c. X   d. Q
34. What is the abbrevation for BCD Adder?
    a. Binary Coded Decimal   c. Bit Coded Decimal
    b. Binary Carry Decimal   d. Bit Carry Decimal
35. How to analyze and Simplify the digital circuits?
    a. Boolean Algebra   b. Pair   c. Quad   d. Octet
36. How many types of laws in Boolean Algebra?
    a. 4   b. 5   c. 6   d. 7
37. Which law states that changing the sequence of the variables does not have any effect on the output of a logic circuit?
    a. Commutative   b. Associative   c. Distributive   d. Inversion
38. Which law states that the order in which the logic operations are performed is irrelevant as their effect is the same?
    a. Commutative   b. Associative   c. Distributive   d. Inversion
39. Which law states that double inversion of a variable results in the original variable itself?
    a. Commutative   b. Associative   c. Inversion   d. Distributive
40. Which law states that if A+B = B+A?
    a. Commutative   b. Associative   c. Inversion   d. Distributive

41. By which storage device is used to store 1-bit binary information?
   a. Decoder   b. Flip Flops   c. Multiplexer   d. Demultiplexer
42. In which gate the JK flipflop both the J and K are disabled?
   a. AND   b. NAND   c. OR   d. NOT
43. In Which group of flipflops is used to store a word?
   a. Counters   b. Registers   c. Full Adder   d. Ripple
44. What is the another name of Asynchronous Counters?
   a. Counters   b. Registers   c. Full Adder   d. Ripple
45. What a register can have?
   a. Number of flip flops   b. AND gates   c. OR gates   d. flip flops
46. A combinational circuit that converts binary information from n-input lines to a maximum of 2^n output lines.
   a. Encoder   b. Multiplexer   c. Decoder   d. Demultiplexer

47. A combinational circuit that select binary information from one of many input lines and directs it to a single output line.
   a. Encoder   b. Multiplexer   c. Decoder   d. Demultiplexer
48. What is the another name of Multiplexer?
   a. data reflector   b. data selector   c. data generator   d. data producer
49. What type of memory elements used in clocked sequential circuits?
   a. logic   b. gates   c. flip flops   d. registers
50. Which type of flip-flop is called as direct coupled flip flop?
   a. RS   b. JK   c. D   d. T
51. What is the another name of D Flip flop?
   a. dynamic   b. discrete   c. distance   d. data
52. What type of sequential circuit that goes through a prescribed sequence of states upon the input pulses?
   a. Decoder   b. Multiplexer   c. Counter   d. Register
53. Which type of counter will follows the binary sequence?
   a. binary   b. BCD   c. decimal   d. ripple
54. Which group of binary storage cells suitable for holding binary information?
   a. Decoder   b. Multiplexer   c. Counter   d. Register
55. Which type of operations executed on data stored in registers?
   a. macro   b. micro   c. arithmetic   d. logic
56. Which type of register holds the address of next instruction?
   a. Instruction   b. Program Counter   c. Processor   d. Register
57. Which part of the computer that performs the bulk of data processing operations?
   a. Memory unit   b. CPU   c. Control unit   d. ALU
58. Which device that stores information in such a manner that the item stored last is the retrieved first?
   a. Stack   b. Queue   c. Register   d. Memory
59. What type of register that holds the address for the stack?
   a. address   b. Pointer   c. counter   d. register
60. Which of the instruction will transfer data from memory to processor registers?
   a. STORE   b. LOAD   c. EXCHANGE   d. ACCUMULATOR
61. Which of the instruction transfers the operands to and from memory and processor register?
   a. STORE   b. MOV   c. LOAD   d. ADD

62. What type of instructions use an implied accumulator register for all data manipulation?
    a. three-address   b. two-address   c. one-address   d. zero-address
63. Which type of allows a person to enter alphanumeric information directly?
    a. mouse   b. light pen   c. keyboard   d. joy stick
64. Which command is issued to activate the peripherals and to inform it what to do?
    a. control   b. status   c. data output   d. data input
65. Which input is used by the DMA controller to request the cpu to relinguish control of the buses?
    a. busgrant   b. busrequest   c. cyclestealing   d. baud rate
66. Which allows the DMA controller to transfer one data word at a time?
    a. busgrant   b. busrequest   c. cyclestealing   d. baud rate
67. Which equipmentis used for storing files of data?
    a. magnetic disk   b. magnetic tape   c. floppy disk   d. compact disk
68. Which command is used to test various status conditions in the interface and the peripherals?
    a. control   b. status   c. data output   d. data input
69. Which command causes the interface to respond by transferring data from the bus into one of its registers?
    a. control   b. status   c. data output   d. data input
70. Which command is the opposite of the data output?
    a. control   b. status   c. data output   d. data input
71. Which allows the DMA controller to transfer one data word at a time?
    a. busgrant   b. busrequest   c. cyclestealing   d. baud rate
72. What procedure is used to identify the highest-priority source by software means?
    a. polling   b. priority   c. trap   d. channel
73. Which memory unit that communicates directly with the cpu?
    a. main   b. auxiliary   c. cache   d. associative
74. Which devices that provide backup storage?
    a. main   b. auxiliary   c. cache   d. associative
75. Which memory is a special very high speed memory?
    a. main   b. auxiliary   c. cache   d. associative
76. Which part of the computer system that supervises the flow of information between auxiliary memory and main memory?
    a. memory management system   b. multitasking system
    c. multiprogram system   d. system management
77. What type is required to position the read/write head to a location.
    a. seek time   b. transfer time   c. access time   d. mode time
78. What type of required to transfer data to or from the device.
    a. seek time   b. transfer time   c. access time   d. mode time
79. What type of bits are stored in the magnetized surface in spots along concentric circles?
    a. tracks   b. sectors   c. seek   d. transfer
80. Which type of disk that is permanently attached to the unit?
    a. hard disk   b. floppy disk   c. compact disk   d. track
81. What type of memory unit accessed by content?
    a. main   b. auxiliary   c. cache   d. associative
82. How the performance of cache memory is frequently measured in terms of a quantity?
    a. miss   b. hit   c. mapping   d. hit ratio
83. How the cpu refers to memory and finds the word in cache?
    a. miss   b. hit   c. mapping   d. hit ratio
84. What is the average time required to reach a storage location in memory?
    a. seek time   b. transfer time   c. access time   d. mode time

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85. Which register used to distinguish between active and inactive words?
    a. tag   b. hit   c. mapping   d. hit ratio
86. What is the transformation of data from main memory to cache memory?
    a. miss   b. hit   c. mapping   d. hit ratio
87. What type of address used by a programmer?
    a. virtual address   b. physical address   c. address space   d. memory space
88. Which address used in main memory?
    a. virtual address   b. physical address   c. address space   d. memory space
89. How the physical memory is broken down into groups of equal size?
    a. virtual address   b. physical address   c. blocks   d. tracks
90. What is the speed memory between the main memory and the CPU called?
    a. Register   b. Cache   c. Storage   d. Virtual
91. What is the difference between data at a location in cache is different from the data located in the main memory?
    a. Unique   b. Inconsistent   c. Variable   d. Fault
92. Which of the following is not a write policy to avoid Cache Coherence?
    a. Write through   b. Write within   c. Write back   d. Buffered write
93. Which of the following is an efficient method of cache updating?
    a. Snoopy writes   b. Write through   c. Write within   d. Buffered write
94. What is the size of the cache memory?
    a. 160 kbits   b. 130 kbits   c. 40 kbits   d. 30 kbits
95. Which memory is used to reduce the average time to access data from the Main memory?
    a. main   b. auxiliary   c. cache   d. associative
96. Which memory is the fastest memory that has faster access time?
    a. main   b. auxiliary   c. cache   d. associative
97. By Which memory the data stays permanently?
    a. main   b. secondary   c. cache   d. associative
98. In which memory data is stored and accepted that are immediately stored in CPU?
    a. main   b. secondary   c. cache   d. register
99. How many types of mapping is used for the purpose of cache memory?
    a. 4   b. 3   c. 2   d. 5
100. Which memory is used to store content and addresses both of the memory word?
    a. Direct   b. Associative   c. Set-Associative   d. Register

SECTION - B

1. Elaborate on Number systems.
2. Convert the following decimal 21.6 to binary equivalent.
3. Convert the Octal 623.77 to decimal, binary and hexadecimal.
4. Convert decimal 1993 to a binary number.
5. Convert $A92_{16}$ to octal.
6. Convert the following decimal number 34.56_{10} into octal and hexadecimal.
7. Convert $(342.45)_{10}$ to octal and binary form.
8. Write short notes on NOR Gate. Explain in detail.
9. Explain different basic gates with truth table.
10. Write short notes on: a. Excess3 code   b. Gray Code
11. Explain about the concept of Half Adder.
12. What is Karnaugh map? Explain about it.
13. Find the minimal expression for the Boolean function.
    $f(A,B,C) = \sum(0,2,4,6)$
14. What do you mean by don't care condition on k –map? Explain.
15. Discuss about the concept of Parallel Binary Adder.
16. Explain about the concept of Half Subtractor.
17. Explain Sum of products in k-map with an example.
18. Discuss about the concept of BCD Adder with an example.
19. Explain products of sum in k-map with an example.
20. Find the minimal expression for the Boolean function.
    $f(A,B,C) = \sum(0,1,2,3,4,6)$
21. Write about the Master – slave JK flip flop in detail.
22. Draw and explain the working of RS flip flop.
23. What is stack? Explain its organization methods.
24. Write short notes on Asynchronous data transfer.
25. What is Encoder? Explain about it.
26. Explain about the concept of General Register Organization.
27. Discuss about the Memory-mapped I/O in I/O interface.
28. Why we need I/O Interface?
29. What is priority interrupt? Explain the Daisy- chaining priority.
30. Explain the four types of commands in I/O bus and Interface modules.
31. Explain memory hierarchy in memory organization.
32. Write short notes on CPU-IOP communication.
33. Write about the concept of Associative memory.
34. Write short notes on read and write operations in associative memory.
35. Write short notes on Input-Output Processor.
36. Explain about the Memory Address map in Main memory.
37. Write short notes on Main memory.
38. Explain RAM and ROM chips in main memory.
39. Write short notes on Hardware organization of Associative memory.
40. Write short notes on Match logic of Associative memory.
41. Explain about the concept of Page Replacement.
42. Write short notes on cache memory.
43. Explain the concept of Associative mapping in cache memory.
44. Explain the concept of direct mapping in cache memory.
45. Address Space and Memory Space in Virtual memory.
46. Address mapping using pages in virtual memory.

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47. Describe cache memory.
48. Describe virtual memory.
49. Explain about the Page Table.
50. Discuss about the concept of Writing into cache Initialization.

SECTION – C

1. Convert the following decimal 2745.1873 into binary, octal and hexadecimal.
2. Explain in detail about the BCD Adder.
3. Describe about the floating point representation with an example.
4. Elaborate on logic gate with neat diagram and truth table.
5. Convert the following hexadecimal CD42.1297 into binary, octal and decimal.
6. Explain in detail about the Binary Adder, Multiplication and Division with an example.
7. Discuss in detail about the complements with an example.
8. Convert the following octal 6237.1234 into binary, decimal and hexadecimal.
9. Convert the following binary 1101101011 into octal, decimal and hexadecimal.
10. Discuss in detail about BCD Adder, Excess3 and Gray code with an example.
11. Find the minimal expression for the switching function.
    $f(A,B,C,D) = \sum(0,1,2,3,4,6,8,9,10,11,12,14)$
12. Explain in detail about Karnaugh map.
13. Explain Product of Sum with K-map.
14. Discuss about Sum of Product with K-map.
15. Minimize the function f= A'BC+A'B'C+A'B'C'+A'BC' using k-map.
16. Explain in detail about K-map construction with its properties.
17. Explain in detail about Full Adder with an example.
18. Elaborate the concept of Parallel Binary Adder & Subtractor with its neat diagram.
19. Explain in detail about don't care combinations with an example.
20. Discuss about the concept of SOP and POS of K-map.
21. Explain in detail about the RS and JK Flip-flop.
22. Explain in detail about Stack Organization.
23. Explain about the concept of General Register Organization.
24. Discuss in detail about the concept of Instruction formats in CPU.
25. Elaborate the concept of data transfer and manipulation of program control.
26. Explain in detail about the concept of I/O interface in I/O Organization.
27. Discuss in detail about the concept of Encoder and Decoder.
28. Describe in detail about Priority Interrupt.
29. Explain about the Strobe Control & Handshaking in Asynchronous Data Transfer.
30. Discuss about the concept of Demultiplexer with an example.
31. Explain about the CPU-IOP Communication in detail.
32. What is the use of Asynchronous Data Transfer? Explain.
33. Elaborate the concept of Main memory.
34. Explain the need functions and usages of the main memory.
35. Explain the Hardware Organization and Match Logic of Associative memory.
36. Write a short note on Associative memory. Explain about it.
37. Explain in detail about Read and Write operation in Memory Organization.
38. Discuss in detail about the concept of Input-Output Processor.
39. Describe about the Memory Organization in detail.
40. Explain in detail about the Memory Organization.

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41. Elaborate about the Cache memory.
42. Describe about the concept of Associative & Direct Mapping.
43. Explain about the Set-Associative mapping in detail.
44. Discuss about the Address space and Memory Space in Virtual Memory.
45. What is Address mapping using pages? Explain it.
46. Explain about the Associative Memory Page Table.
47. What is Page Replacement? Explain in detail.
48. Discuss about the Writing into cache initialization.
49. Elaborate about the Main memory in Memory Organization.
50. Explain about the Virtual Memory in detail.

1. c	45. a	90. b
2. b	46. c	91. b
3. a	47. b	92. b
4. d	48. b	93. a
5. d	49. c	94. a
6. b	50. a	95. c
7. b	51. d	96. c
8. b	52. c	97. b
9. a	53. a	98. d
10. b	54. d	99. b
11. a	55. a	100. b
12. a	56. b	
13. a	57. b	
14. b	58. b	
15. a	59. b	
16. a	60. b	
17. a	61. c	
18. a	62. b	
19. a	63. c	
20. b	64. a	
21. d	65. b	
22. c	66. c	
23. a	67. b	
24. a	68. b	
25. b	69. c	
26. b	70. d	
27. c	71. c	
28. d	72. a	
29. b	73. a	
30. a	74. b	
31. b	75. c	
32. c	76. a	
33. c	77. a	
34. a	78. b	
35. a	79. a	
36. c	80. a	
37. a	81. d	
38. b	82. d	
39. c	83. d	
40. a	84. c	
41. b	85. a	
42. a	86. c	
43. b	87. a	
44. d	88. b	
	89. c	

KONGUNADU ARTS AND SCIENCE COLLEGE *(Autonomous)*

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TITLE OF THE PAPER: C PROGRAMMING

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CONTENTS

SECTION A

1. The statement begins with /* and ends with */ is called
   a) online   b) offline   c) comment   d) executable
2. Which operator is applied on 2 operands?
   a) unary   b) binary   c) ternary   d) special
3. The hexadecimal integer begins with
   a) Oh   b) 0x   c) 0o   d) \0
4. Which translator is used to convert a C program into machine language?
   a) assembler   b) compiler   c) analyzer   d) interpreter
5. Write the developer of C language.
   a) Dennis Ritchie   b) Lee   c) Balagurusamy   d) Kanitkar
6. Number of bytes occupied by a character variable is
   a) 2   b) 1   c) 4   d) 8
7. Number of bytes occupied by an integer variable
   a) 2   b) 1   c) 4   d) 8
8. Number of bytes occupied by a float variable is
   a) 2   b) 1   c) 4   d) 8
9. What is the valid range of numbers of int type?
   a) 0 to 256   b) -32768 to +32767 c) -65536 to +65536   d) No specific range
10. Write the output for the statement printf("%d", 'a');
    a) 97   b) 96   c) 65   d) 66
11. Every string in C is terminated by
    a) \l   b) \0   c) \2   d) \00
12. Which of the following symbol is used to denote a pre-processor statement?
    a) $ b) %   c) #   d) &
13. Which of the following statement is wrong?
    a) mes=123.34; b) con='7'* 2;   c) 3+4 = c;   d) a=2*V;
14. Which of the following is a Scalar Data type
    a) Float   b) Union   c) Array   d) Pointer
15. The bitwise AND operator is
    a) &&   b) | c) &   d) ||
16. Every executable statements in C are terminated by
    a) :   b) .   c) ;   d) '
17. Which escape character can be used to begin a new line in C?
    a) \a   b) \b   c) \m   d) \n
18. Header files in C contain
    a) Compiler commands   b) Library functions
    c) Header information   d) Operators for files
19. An Ampersand before the name of a variable denotes
    a) Actual Value   b) Variable Name   c) Address   d) Data Type
20. User defined functions makes a C program
    a) structured   b) object oriented   c) unstructured   d) file oriented
21. The statements are executed at least once in the looping statement
    a) while   b) do-while   c) for   d) nested for
22. The statement which is used to take the control to the beginning of the loop is
    a) break   b) continue   c) exit   d) while.
23. Which of the following is an example of update assignment statement?
    a) a = 5   b) a += 5   c) a = b = c   d) a = b

24. Write a statement equivalent to the following x=sqr(a); return(x);
    a) return(sqr(a));   b) print("'sqr(a)");   c) return(a*a*a);   d) return (a);
25. Which among the following is an unconditional control structure
    a)do-while   b) if-else   c) goto   d) for
26. Continue Statement is Used to
    a) to go to the next iteration in a loop   b) come out of a loop
    c) exit and return to the main function   d) restarts iterations from beginning of loop
27. Which is the exit controlled looping structures?
    a) for   b) do..while   c) while   d) all the above
28. Immediately terminate the execution of a loop using
    a) continue   b) break   c) default   d) auto
29. How many times the statement for(i=1;i<=15;i+=2) will be executes?
    a) 5   b) 8   c) 9   d) 0
30. for loop contains another for looping statement is called
    a) nested   b) multiple   c) static   d) array
31. The keyword else can be used with
    a) switch   b) if   c) for   d) do
32. The default statement is executed with
    a) switch   b) if   c) for   d) do
33. The default statement is executed when
    a) all the case are false   b) one of the case is true
    c) all the case are true   d) one of the case is false
34. What happens if you create a loop that never ends?
    a) program ended   b) program executes   c) system halt   d) system off
35. The statementswhich are executed repeatedly is called
    a) condition   b) if   c) loop   d) sequence
36. Write the output for the statement for(i=1;i<=10;i++); printf("%d",i);
    a) 1   b) 10   c) 11   d) i
37. The statements in if block is executed when the condition is
    a) true   b) false   c) true or false   d) true and false
38. An if contains another is called
    a) nestedif   b) if..else   c) else if ladder   d) simple if
39. The multiple branching statement is
    a) for   b) do   c) while   d) switch
40. The conditional operator is
    a):?   b) ?:   c) ;?   d) ??
41. The array elements are stored in the memory locations
    a) garbage   b) continuous   c) random   d) even
42. How many bytes are occupied by the variable i, inti[10];
    a) 10   b)40   c)20   d) 0
43. Which is the collection of similar data type?
    a) array   b) set   c) structure   d) union
44. The function returns the length of the string is
    a) strcpy()   b) strlen()   c) strlength()   d) strl()
45. char a[]={'h','a','i'}; size of the array a is
    a) 3   b) 4   c) 2   d) 0
46. Number of arguments used in the function strncat as
    a) 0   b) 1   c) 2   d) 3
47. The strcmp() function returns the value as
    a) int   b) char   c) float   d) NULL

48. An array with more than two subscript is referred as a dimension of
    a) two   b) three   c) four   d) multi
49. What does main() returns?
    a) system   b) Microprocessor   c) operating system   d) compiler
50. A function called another function is
    a) calling function   b) called function   c) recursion   d) nested function
51. What does C function return ?
    a) float   b) double   c) integer   d) char
52. When the function returns nothing what will be return type ?
    a) int   b)void   c)null   d) float
53. What are the parameters given in the function calling statement calledas?
    a) actual   b) formal   c) global   d) local
54. The actual parameters must match the formal parameters in
    a) type, order   b) number   c) both a& b   d) none
55. Any mismatch in data types may also result in
    a) garbage value   b) positive value   c) negative value   d) 0
56. A function called itself is called as
    a) recursion   b) definition   c) iteration   d) repetition
57. Local variables are also called as
    a) internal   b) external   c) static   d) register
58. What is the scope of the formal argument?
    a) only in the function   b) entire program   c) outside the programd) not at any where
59. Variables that are both active and alive throughout the program is called as
    a) internal   b) external   c) static   d) register
60. Parameters are also knows as
    a) prototype   b) arguments   c) function   d) structure
61. What is (void*)0?
    a) Representation of NULL pointer   b)   Representation of void pointer
    c)   Error   d) None of above
62. If a variable is a pointer to a structure, then which of the following operator is used to access data members of the structure through the pointer variable?
    a)   .   b)   &   c)   *   d)   ->
63. A pointer is
    a) A keyword used to create variables   b) A variable that stores address of an instruction   c)A variable that stores address of other variable   d)All of the above
64. What is a Pointer variable is preceded by ?
    a) *   b) &   c) ->   d);
65. Which is called indirection operator?
    a)*   b)&   c)->   d);
66. What is the process of calling a function using pointers is called as?
    a) call by valueb) call by reference   c) call by constant   d) none
67. The elements of an array is accessed by
    a) Incrementing pointer variable   b) decrementing pointer variable
    c) using pointer variable   d) all the above
68. .A pointer variable refers to
    a) an integer constant   b) A float value
    c) Any valid address in memory   d) any variable
69. Identify the correct declaration of pointer variable p1 and p2.
    a)intpl,p2;   b) int *pl, p2;   c) intp 1 , *p2;   d) int *pl, *p2;

70. The operand of indirection operator is
    a) pointer variable   b) pointer expression c) both a) and b) d) ordinary variable
71. The operators exclusively used in pointers are
    a) * and &   b) * and $ c) & and .   d) & and $
72. The address is
    a) signed   b) unsigned   c) long   d) short
73. The function used to remove the allotted space is
    a) new   b) delete   c) remove   d) free
74. printf("%d",&a); what is the output?
    a) value of a   b) address of a   c) garbage value   d) 1
75. short *p[4]; the amount of memory to be allotted for p is bytes
    a)0   b)4   c)6   d) 16
76. The memory size of the variable is also called
    a) scale factor   b) integer factor   b) length   d) none
77. & is called as ?
    a) address operator   b) value at operator
    c) indirection operator   d) increment operator
78. The operator that is used to get the value at address stored in a pointer variable is
    a) &   b) %   c) *   d) |
79. What do the followingdeclaration signify? int (*pf)();
    a) pf is a pointer to function. b) pf is a function pointer.
    c) pf is a pointer to a function which return int d) pf is a function of pointer variable.
80. What do the following declaration signify? char **argv;
    a) argv is a pointer to pointer.   b) argv is a pointer to a char pointer.
    c) argv is a function pointer.   d) argv is a member of function pointer.
81. The union stores
    a) all objects at a time   b) one object at a time
    c) multiple object at a time   d) none
82. What is a collection of related data possibly of different type is called as?
    a) array   b) structure   c) function   d) table
83. A bit field is defined like a
    a) structure   b) array   c) variable   d) file
84. The structure declaration is ended with--------------
    a):   b).   c) ;   d))/
85. struct x{   }; What is x called as
    a) structure variable   b) tag name   c) member   d) none
86. Is it possible the structure contain pointer to itself?
    a) possible   b) not possible c) c can't support
87. Which one is the C compiler?
    a) Ansi   b) Turbo   c) Borland   d) All the above
88. Which function is used to find the memory size for the variables.
    a) size()   b) sizeof()   c) length()   d) none
89. Which function is used to compare the C structures automatically?
    a) compare()   b) strcmp()   c) Not possible   d) comp()
90. Whichoperator is used to access the member of the structure?
    a) ;   b) .   c) :   d) -
91. Structures within another structures is called
    a) Nested structures   b) structure variable   c) structure argument   d) none

92. When the structure is passed to a function, what is possibly passed?
    a) Entire structure   b) members in the structure
    c) address of the structure   d) all the above
93. Which is used to access the bit values?
    a) struct   b) union   c) bitfield   d) bit
94. Which function is used to open a file?
    a) fcreate()   b) create()   c) open()   d) fopen()
95. Which function is used to read a character from the file?
    a) getc()   b) gets()   c) getch()   d) getche()
96. What is the type of file datatype ?
    a) primitive   b) user defiled   c) derived   d) char
97. What is the mode used for file opened for both reading and writing?
    a) r   b) w   c) r+   d) a   .
98. If an error occurs while opening the file, what value does the file pointer return?
    a) 1   b) -1   c) 0   d) 2
99. What is the mode used for append new contents to the end of the file?
    a) w+   b) r+   c) a   d) w
100 In which function is the Command line arguments passed?
    a) main()   b) printf()   c) scanf()   d) any user defined function

SECTION B

1. Write about the importance of c language.
2. Discuss the basic structure of a c programming with example.
3. Write a program to calculate the simple interest.
4. Explain the basic input and output functions in c.
5. List the relational and logical operators used in C.
6. Write about primitive data types.
7. How to declare and initialize the values to variables.
8. Write the conversion specification characters in C. Give example.
9. Explain Escape sequence characters with example.
10. Explain increment and decrement operators in c with example.
11. Write the difference between while and do-while loop.
12. Illustrate for loop with example.
13. Write the syntax of if statement and its types with example.
14. Which is the multiple branching statement? Explain it with example.
15. Explain nested for loop with example.
16. How to use the conditional operator to check a condition? Explain with example.
17. Explain goto statement with example.
18. Write a program to calculate factorial of a number.
19. Write a program to calculate sum of numbers from 1 to n.
20. Write a program to print the greatest of 3 numbers.
21. What is an array?
22. How to declare and initialize an one dimensional array?
23. Write a program to print sum of n numbers in an array.
24. Write about strings.
25. Write a program to check a string is palindrome.
26. How to declare and initialize an one dimensional array?
27. How to declare and initialize two dimensional array?
28. What is a function? Write the advantages of a functions.
29. Write a program o perform arithmetic operations using functions.
30. Explain recursion with example.
31. What is a pointer?
32. Write the advantages of a pointer.
33. Write about & and * operator in pointers.
34. Discuss on pointer on pointers.
35. Write about the arithmetic expressions using pointers.
36. Write about sizeof() with example.
37. Write a program to print the address of an integer variable.
38. Write a program to swap two integer values using pointers.
39. Explain pointers and arrays.
40. Write a program to print the array elements using pointers.
41. What is a structure? Write the syntax for structure.
42. How to initialize a structure variable.
43. Write the difference between structure and union.
44. Write about nested structure. Give an example.
45. Write a program to print student mark sheet using structures.
46. What is a file? How to open and close a file?
47. How to read and write the character into the file?
48. Write a program to store the address of a person in a file.

49. Explain fprintf() and fscanf() with example.
50. Write the difference between printf() and fprintf()

SECTION C

1. Summarize the history and the advantages of c language.
2. How will you compile and execute a c program? Explain with example.
3. Explain about C tokens in detail.
4. Explain the data types in c.
5. Explain the operators in c.
6. Explain the hierarchy of operators in c language.
7. Elaborate type conversion with example.
8. Describe formatted input and output with examples.
9. Construct a program to perform arithmetic operations
10. Elaborate on constants and variables in C.
11. List out all branching statements? Explain with example.
12. Explain all looping statements with example.
13. Construct a program to print the sum of the series 1+1/2+1/3+1/4+…..
14. Construct a program to print student mark sheet .
15. Explain break and continue statement in detail.
16. Elaborate jumps in loops with examples
17. Construct a program to find the factorial of a number
18. Summarize switch case statements with example
19. Construct a program to print cos value of x.
20. What are the benefits of looping statements in c? Explain
21. Summarize array and its types with example.
22. Construct a program to perform matrix operations
23. Elaborate string functions with example.
24. Explain the concept of single dimensional array with example
25. How will you manipulate multi dimensional arrays
26. Construct a program to sort n numbers using bubble sort
27. What is recursion? Explain with example.
28. Elaborate on Types of a function
29. What is a function? Explain about the type of functions
30. What is call by value and call by reference? Explain
31. What is a pointer? Explain about chain of pointers with example
32. Explain about pointers and arrays.
33. Explain structure and pointers with example.
34. How will you access functions usingpointers.
35. Elaborate on pointer and scale factor
36. Explain about accessing array using pointers
37. Construct a program to find the palindrome using pointers
38. Construct a program to add 2 matrices using pointers
39. Describe about scope lifetime and visibility of variables
40. How will you access a variable value using pointers? Explain with example
41. What is a structure? Explain with example
42. Elaborate Union with example.
43. Describe in detail about file I/O
44. What are Command Line Arguments Explain?
45. How to read and write the number into the file? Explain with example

46. Explain array of structures and arrays within structures.
47. Construct a program to copy the content of one file to another file using command line arguments.
48. Elaborate on Preprocessor Directives
49. What are Complier Control Directives? Explain
50. Explain in detail about macro substitution.

Answers

1. c
2. b
3. b
4. b
5. a
6. b
7. a
8. c
9. b
10. b
11. b
12. c
13. c
14. a
15. c
16. c
17. d
18. b
19. c
20. b
21. a
22. b
23. b
24. a
25. c
26. a
27. b
28. b
29. b
30. a
31. b
32. a
33. a
34. b
35. c
36. c
37. a
38. a
39. d
40. b
41. b
42. c
43. a
44. b
45. b
46. d
47. a
48. d
49. c
50. d
51. c.
52. b
53. a
54. a
55. a
56. a
57. a
58. a
59. b
60. b
61. a
62. d
63. b
64. a
65. a
66. b
67. a
68. c
69. d
70. c
71. a
72. c
73. d
74. b
75. d
76. a
77. a
78. c
79. c
80. b
81. b
82. b
83. a
84. c
85. b
86. a
87. d
88. a
89. c
90. b
91. a
92. d
93. c
94. d
95. a
96. c
97. c
98. b
99. c
100. a

KONGUNADU ARTS AND SCIENCE COLLEGE
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QUESTION BANK

SUBJECT CODE: 15UIT304
TITLE OF THE PAPER: DATA STRUCTURES AND ALGORITHMS

DEPARTMENT OF INFORMATION TECHNOLOGY

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Question Bank
Data structures and Algorithms

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Section -A

1) Which criteria satisfy that every instruction must be sufficiently basic?
a) Effectiveness b) Finiteness c) Definiteness d) Infiniteness

2) What is Datastructure?
a) Set of Axioms b) Set of Domains   c) Set of Functions d) all the above

3) Which language is used for algorithms in datastructure?
a) C   b) C++   c) COBOL   d) SPARKS

4) Which is the art of creating sample data upon which to run the program?
a) Verification b)Testing c) Debugging d) Program proving

5) Which is the simplest and commonly used data object?
a) Ordered list b) Stacks c) Queues d) Linked list

6) How an Ordered list is represented?
a) Array b) Stacks c) Queues d) Linked List

7) A matrix with many zero entries are called
a) Square matrix b) Sparse matrix c) Diagonal matrix d) Scalar matrix

8) What is the synonym for Row-major order?
a) Column order b) Row order c) Major order d) Lexicographic order

9) In which data object all insertions and deletions take place at one end?
a) Array b) Stacks c) Queues d) Linked List

10) In which data object all insertion take place at one end and all deletions take place at another end?
a) Array b) Stacks c) Queues d) Linked List

11) Which data object is also called FIFO?
a) Array b) Stacks c) Queues d) Linked List

12) Which data object is also called as LIFO?
a) Array b) Stacks c) Queues d) Linked List

13) Which condition is used in circular queue for representing a full and empty queue?
   a) front = front+1   b) rear = rear+1
   c) front = front-1   d) front = rear

14) What does an expression is made up of?
   a) Operands   b) Operators   c) delimeters   d) all the above

15) Which operator is used in circular queue?
   a) Addition   b) Subtraction   c) Division   d) Modulo

16) What is the conventional way of writing an expression?
   a) Expression   b) Infix   c) Postfix   d) Prefix

17) In which expression an operator appears after its operands?
   a) Expression   b) Infix   c) Postfix   d) Prefix

18) Which is not an ordered list?
   a) Array   b) Stacks   c) Queues   d) Linked List

19) How many tuples are used for representing a sparse form?
   a) 3   b) 4   c) 5   d) 2

20) Which refers to the kind of data that a variable may hold?
   a) Data structure   b) Data type c) Data object d) Data representation

21) Using which the problem of data movement in sequential
   Representation is solved?
   a) Arrays   b) Stacks   c) Queues   d) Linked List

22) What does a node made up of?
   a) Nodes   b) Links   c) Lists   d) Nodes and Links

23) Where all free nodes are placed?
   a) Pool   b) Storage Pool   c) Sparse   d) Box

24) Which method is used to return node X to storage pool?
   a) Getnode(X)   b) Ret(X)   c)Return(X)   d) Delete(X)

25) An efficient way to represent several stack is
   a) Linked list   b) Circular list
   c) Linked stack   d) Doubly linked list

26) How the variable AV is declared?
   a) Locally   b) Globally   c) Privately   d) Protectedly

27) Where in the storage pool the returned node will be inserted?
   a) Front   b) Middle   c) End   d) Left

28) Which procedure is used to create a new node and append to the end of the list?
   a) Attach()   b) Getnode()   c) Ret()   d) Return()

29) In which type the last node points to the first node?
   a) Linked list b) Singly list   c) Doubly list d) Circular list

30) How many fields are there in doubly linked list?
   a) 3   b) 2   c) 4   d) 5

31) What is the name of the special node in doubly linked list?
   a) Left node   b) Right node c) Data node d) Head node

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32) What is the process of searching down the list of free blocks and finding   the first block of size>n is called?
   a) Best fit   b) Next fit   c) First fit   d) Last fit

33) What is the process of finding a free block whose size is as close to?
   a) Best fit   b) Next fit   c) First fit   d) Last fit

34) What is the value of TAG for a free node?
   a) 0   b) 1   c) 2   d) -1

35) What is the value of TAG for an Allocated node?
   a) 0   b) 1   c) 2   d) -1

36) What does a UPLINK field of a free block points to?
   a) Start of the block   b) End of the block
   c) Start of the next block   d) End of the next block

37) Having the tag field in first and last nopdes of each block is called
   a) Tag method   b) Global method
   c) Local method   d) Boundary tag method

38) Which phase is used for marking all nodes in use?
   a) Marking phase   b) Unmarking phase
   c) Compact phase   d) Allocate phase

39) How a node accessible through link field is called?
   a) Directly accessible   b) Indirectly accessible
   c) Linearly accessible   d) Sequentially accessible

40) What is the process of collecting all unused nodes and returning them
    to available space?
   a) Collection b) Garbage collection c) Compaction d) Relocation

41) What does a number of subtrees of a node called?
   a) Degree   b) Leaf c) Terminal d) Children

42) What does a node having degree zero called?
   a) Leaf   b) Nonterminal   c) Degree d) Children

43) When a root is removed from a tree it is called?
   a)Tree b) Degree c) Ancestor d) Forest

44) A finite set of nodes which is either empty or consists of a root and 2
    disjoint binary trees is called
   a) Binary tree b) Tree c) Forest d) Root

45) In a complete binary tree with n nodes, Lchild will be at which position?
   a) i/2   b)2i   c) 2i+1   d) 2i-1

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46) In a complete binary tree with n nodes, Rchild will be at which position?
   a) i/2   b)2i   c) 2i+1   d) 2i-1

47) In a complete binary tree with n nodes, Parent will be at which position?
   a)i/2   b)2i   c) 2i+1   d) 2i-1

48) The traversal method that move down the tree towards the left until you can go no farther is called
   a) Inorder   b) Preorder c) Postorder d) Priorder

49) Using which pointer the null links are replaced?
   a) Threads b) Left c) Right d) Normal

50) For which pointer the LBIT and RBIT will have value 1?
   a)Threads b) Left c) Right d) Normal

51) Which symbol is used to represent a directed graph?
   a) < > b) ( )   c) { }   d) [ ]

52) How many edges are there in a undirected graph?
   a) n(n-1)/2   b) n(n+1)/2   c) (n-1)/2   d) (n+1)/2

53) What is the maximum number of edges in a directed graph?
   a) n(n-1)/2   b) n(n+1)/2   c) n(n-1)   d) n (n+1)

54) Which path will have same first and last vertices?
   a) Cycle   b) Simple path c) Connected d) Length

55) The number of edges for which V is the head is called
   a) In-degree b) Out-degree c) Degree d) Digraph

56) The number of edges for which V is the tail is called
   a) In-degree b) Out-degree c) Degree d) Digraph

57) Which is the type of tree that contains solely of edges in G and including all vertices in G is called?
   a) Tree   b) Complete tree c) Spanning tree   d) Binary tree

58) A matrix with the property $A^+(i,j)=1$ if there is a path of length>0 from i to j is called
   a) Closure b) Transitive closure c) Reflexive closure d) None

59) A matrix with the property $A^+(i,j)=1$ if there is a path of length>=0 from i to j is called
   a) Closure b) Transitive closure c) Reflexive closure d) None

60) What does a number on the edge represents?
   a) Weights   b) Heights c) Width d) None

61) Which field is used to distinguish among the records?
   a)Keys   b) Values   c) Index   d) Records

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62) In which search method the key values are examined in order?
   a) Sequential b) Non-sequential c) Random d) None

63) In which search method, the search begins by examining the record in the middle of the file?
   a)Sequential search b) Binary search c) Random search d) Fibonacci search

64) What operator does a fibonacci search involves?
   a) Addition   b) Subtraction   c) Both (a) and (b)   d) Division

65) Which is defined to be a complete binary tree with the property that the value of each node is atleast as large as the value of its children?
   a) Binary tree b) Tree c) Heap d) Spanning tree

66) Which sort method is used for sorting file of records with respect to keys?
   a) Radix sort b) Quick sort c) Heap sort d) Merge sort

67) What is the total computing time for merge sort?
   a) $O(n \log n)$ b) $O(n^2 \log n)$ c) $O(n^2 \log n^2)$ d) $O(n \log n^2)$

68) In how many ways records in a file can be stored?
   a) 1   b) 2   c) 3   d) 4

69) Where does a key controlling the process is kept in quick sort?
   a) Left   b) Right   c) Middle   d) End

70) What is the time taken by each pass in LRSORT?
   a) $O(n+r)$ b) $O(d(n+r))$ c) $O(dn+r)$ d) $O(dr+n)$

71) The time taken to position the read/write head to the correct cylinder
   a) Seek time   b) Latency time   c) Time   d) Transmission time

72) The time taken until the right sector of the track is under the read/write head is called
   a) Seek time b) Latency time   c) Time   d) Transmission time

73) The time taken to transmit the block of data to/from the disk is called
   a) Seek time   b) Latency time   c) Time   d) Transmission time

74) The segment of the input file sorted using internal sortting is called
   a) Blocks   b) Segments   c) Groups   d)Runs

75) Which is the popular sorting method used on external storage devices?
   a) Merge sort b) Quick sort c) Insertion sort d) Radix sort

76) What is the value of K for reducing the number of passes over the data?
   a) K>=2   b) K=2   c) K<=2   d) K=1

77) Number of buffers required for K-way merge are
   a) 2k+2   b)2k   c) 2k-1   d)2k-2

78) How many tapes should be used to avoid the redistribution?
   a) 2k+2   b)2k   c) 2k-1   d)2k-2

79) How many output buffers are used in buffer handling for parallel operations?
   a) 2   b) 3   c) 4   d) 1

80) In which tree the node represents the smallest of its 2 children?
   a) Binary tree b) Spanning tree c) Selection tree d) Complete tree

81) In which tree table the identifiers are known in advance?
   a) Static   b) Dynamic   c) Symbol   d) Binary

82) What is associated with each name in a symbol table?
   a) Attributes b) Fields   c) Records   d) Keys

83) Which is not a part of the original tree?
   a) Internal node   b) External node c) Left node d) Right node

84) External node is also called as
   a) Internal node   b) Parent node c) Failure node d) Success node

85) Which value is not a balance factor of an AVL tree?
   a) 0   b) 1   c) -1   d) 2

86) Which term is used to represent that if Y is inserted in the right subtree of the left subtree of A?
   a) LL   b) LR   c) RR   d) RL

87) What occurs when a new identifier I is mapped into a full bucket?
   a) Hashing   b) Collision   c) Overflow   d) Merging

88) What occurs when 2 nonidentical identifiers are hashed into the same bucket?
   a) Hashing   b) Collision   c) Overflow   d) Merging

89) In which of these a series of hash functions are used?
   a) Quadratic probing   b) Chain probing   c) Rehashing d) Linear probing

90) Which hash function adds different parts of to get F(x)?
   a) Digit analysis   b) Mid square c) Division d) Shift folding

91) What is meant by a combination of key values specified for retrieval?
   a) File   b) Records   c) Keys   d)Query

92) Which type of query specifies a range of values for a single key?
   a) Simple   b) Range   c) Functional   d) Boolean

93) In which mode of retieval, the response time is not very significant?
   a) Real time b) Batched   c) Physical   d) Logical

94) Which type of index contains one entry for every record in the file?
   a) Dense   b) Non dense   c) File   d) Directory

95) Which indexing technique is also referred to as ISAM?
   a) Cylider-surface   b) Hashed   c) Tree   d) Trie

96) What will be the degree of Trie indexing?
   a) m>=2   b)m<=2   c) m<=3   d) m>=3

97) Which file organization is used to records at random locations on disk?
   a) Sequential b) Random   c) Linked   d) cellular

98) In which organization logical sequence is different from physical sequence?
   a) Sequentialb) Random   c) Linked   d) cellular

99) Which link in coral rings is used to represent back pointers?
   a) LLINK   b) RLINK   c)ALINK   d)BLINK

100) In which organization the link information is kept in the index itself?

   a) Linked b) Cellular   c) Inverted files   d) Coral rings

SECTION- B

1) Define Algorithm and its characteristics.
2) What is Data structue?
3) Define an Ordered list and its operations.
4) What is Sparse Matrix?
5) How to represent an Array?
6) Give brief note about Stacks.
7) Discuss about Queues.
8) Write short note on Multiple Stacks and Queues.
9) Discuss about Circular Queues.
10) What is the procedure to Transpose a Sparse matrix?
11) Discuss about Singly Linked List.
12) How to insert a node into and delete a node from the linked list?
13) Write a procedure for creating the linked list.
14) Discuss about Linked Stacks.
15) Discuss about Linked Queues.
16) Write the Procedure of GETNODE.
17) Write the Procedure of RET.
18) Write short note on Doubly Linked List.
19) Give a brief note about First Fit Algorithm.
20) Discuss about the Marking phase in Garbage collection.
21) List out the Terminologies of Tree.
22) Write the Structure of Tree.
23) How to Count the Binary trees?
24) Discuss about Inorder Traversal.
25) How trees are represented using List?

26) Define Graph and its Terminologies.
27) Discuss about Adjacency Multilist.
28) Write short note Connected Components.
29) Write short note on Shortest Paths.
30) Define Transitive Closure.
31) Discuss about Sequential search.
32) How does 2-way Merge sort works?
33) Give a brief note about Insertion sort.
34) Discuss about Binary search.
35) Discuss about Fibonacci search.
36) Explain about K-way merge.
37) Define Polyphase Merge.
38) Differentiate between Internal and External Sorting.
39) Define Run generation.
40) Write short note on Run generation.
41) Discuss about the Symbol Table.
42) How to search for an identifier in Static tree table.
43) Write the Search algorithm for searching an identifier in Dynamic Tree Table.
44) Write Short note on Hash Tables.
45) Define Query and its Types.
46) Discuss about Mode of Retrieval and Mode of Update.
47) Give a brief note about Cylinder-Surface Indexing.
48) Discuss about Random Organization.
49) Write short note on Linked Organization.
50) Discuss about Trie-Indexing.

SECTION-C

1) How to Create a Program?
2) How to Analyze a Program?
3) What is the procedure for inserting and deleting items from the Stack?
4) Write the procedure for inserting and deleting items into the Queue.
5) How to Evaluate the Expression? Explain in detail.
6) Write the Procedure for converting an Infix into Postfix Expression.
7) Write the Procedure to Evaluate the Postfix Expression.
8) Discuss about the Structure of Polynomial Addition in detail.
9) Explain in detail about the SPARKS language.
10) Write the Procedure for Inserting and Deleting items into a Circular
11) Discuss in detail about Linked List.
12) Explain the concept of Storage Pool in detail.
13) How Polynomial addition is performed using Linked List?
14) Discuss in detail about the additional operations performed on Linked List.
15) How to represent a Sparse Matrix using Circular linked list?
16) Discuss in detail about Dynamic Storage Management.
17) Explain the procedure for Freeing a node in detail.
18) Explain the procedure for Allocating a node in detail.
19) Illustrate the concept of Garbage Collection in detail.
20) Explain about Storage Compaction in detail.
21) Discuss about Binary Tree Representation in detail.

22) How the nodes in Binary tree are visited? Explain in detail.
23) Explain in detail about Threaded Binary tree.
24) Discuss about Inorder successor and Threaded Inorder procedure.
25) Discuss about Graph Representation in detail.
26) What is Spanning tree? Explain in detail.
27) How to calculate the Minimum cost Spanning Tree?
28) Discuss about Graph Traversals in detail.
29) How to find shortest path from Single Source to All Destinations.
30) Discuss about All pairs Shortest path method in detail.
31) Explain in detail about different searching methods.
32) Discuss about Quick sort along with the algorithm and example.
33) With the example explain in detail about Heap Sort.
34) Illustrate the Radix sort algorithm with example.
35) Discuss about Merge sort in detail along with example.
36) Explain in detail about Sorting with disks.
37) How to handle buffers using Parallel operations?
38) Discuss about Balanced Merge Sort in detail.
39) Explain in detail about Sorting with tapes in detail.
40) Write the M1, M2 and M3 algorithm.
41) Explain in detail about Static tree Table.
42) Explain briefly about Dynamic Tree Table.
43) Explain in detail about Height-Balanced Tree.
44) List out the Hash functions in detail.
45) How to handle Overflow in Hash tables? Explain them in detail.
46) Discuss in detail about Indexing Techniques.
47) Discuss about File Organization in detail.
48) Illustrate the concept of Hash Indexing in detail.
49) Explain in detail about Random organization.
50) Briefly explain about Tree Indexing.

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Answer key for section A:

1)	A		54)	A	
2)	D		55)	A	
3)	D		56)	B	
4)	B		57)	C	
5)	A		58)	B	
6)	A		59)	C	
7)	B		60)	A	
8)	D		61)	A	
9)	B		62)	A	
10)	C		63)	B	
11)	C		64)	C	
12)	B		65)	C	
13)	D		66)	A	
14)	D		67)	A	
15)	D		68)	B	
16)	B		69)	B	
17)	C		70)	A	
18)	D		71)	A	
19)	A		72)	B	
20)	B		73)	D	
21)	D		74)	D	
22)	D		75)	A	
23)	B		76)	A	
24)	B		77)	A	
25)	C		78)	B	
26)	B		79)	A	
27)	A		80)	C	
28)	A		81)	A	
29)	D		82)	A	
30)	A		83)	B	
31)	D		84)	C	
32)	C		85)	D	
33)	A		86)	B	
34)	A		87)	C	
35)	B		88)	B	
36)	A		89)	C	
37)	D		90)	D	
38)	A		91)	C	
39)	B		92)	B	
40)	B		93)	B	
41)	A		94)	A	
42)	A		95)	A	
43)	D		96)	A	
44)	A		97)	B	
45)	B		98)	C	
46)	C		99)	D	
47)	A		100)	C	
48)	A				
49)	A				
50)	D				
51)	A				
52)	A				
53)	C				

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QUESTION BANK

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JANUARY 2019

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Question Bank
DATA MINING

CONTENTS

SECTION - A

1. Which is referred to as finding hidden information in a database?
   a. Data mining   b. Data set   c. Data warehouse   d. Database
2. Which is not a subset of the Database?
   a. Query   b. Data   c. Output   d. Information
3. How does a traditional database queries access a database?
   a. SQL   b. Query   c. Program   d. Rules
4. Which model makes a prediction about values of data using known results?
   a. Predictive   b. Descriptive   c. Preference   d. Search
5. Which model identifies patterns or relationships in data?
   a. Predictive   b. Descriptive   c. Preference   d. Search
6. Which is used to map a data items to a real valued prediction variable?
   a. Classification   b. Regression   c. Prediction   d. Analysis
7. Which is not a predictive task?
   a. Classification   b. Regression   c. Prediction   d. Clustering
8. Which is not a descriptive task?
   a. Clustering   b. Summarization c. Discovery   d. Regression
9. In which, the value of an attribute is examined as it varies over time?
   a. Regression   b. Classification   c. Time Series analysis   d. Prediction
10. Which is also referred to as link analysis?
    a. Association Rules   b. Summarization   c. Clustering   d. Sequence Discovery
11. In which KDD step erroneous data are corrected or removed?
    a. Selection   b. Preprocessing   c. Transformation   d. Interpretation
12. Which visualization technique includes the box plot and scatter diagrams?
    a. Graphical   b. Geometric   c. Icon-based   d. pixel-based
13. Which is used to proceed from very specific knowledge to more general information?
    a. Compression   b. Induction   c. Querying   d. Approximation
14. Which approach of data mining is used to describe some characteristics of a set of data by a general model?
    a. Compression   b. Induction   c. Querying   d. Approximation
15. Which term is used to represent the data that do not fit nicely into the derived model?
    a. Overfitting   b. Outliers   c. Irrelevant   d. Noisy data
16. Which term is used to represent the attributes in the database that are not interest to the data mining task being developed?
    a. Overfitting   b. Outliers   c. Irrelevant   d. Noisy data
17. Which problem refers that there are many attributes involved and its difficult to determine which one should be used?
    a. Dimensionality   b. Visualization   c. Outliers   d. Multimedia
18. In which visualization techniques, the display area are hierarchically divided into regions based on data values?
    a. Hybrid   b. Pixel-based   c. Icon-based   d. Hierarchical

19. In which KDD step, data from different sources are converted into a common format for processing?
    a. Selection   b. Preprocessing   c. Data mining   d. Transformation
20. Which is called as a special type of clustering?
    a. Affinity analysis   b. Link analysis   c. Association   d. Segmentation
21. Which model describes the relationship between input and output through the algebraic equations?
    a. Parametric   b. Non Parametric   c. Parenthesized   d. Non Parenthesized
22. Which is a data-driven model?
    a. Parametric   b. Non Parametric   c. Parenthesized   d. Non Parenthesized
23. What is the difference between the expected value of the estimator and the actual value?
    a. Bias   b. Unbias   c. Model   d. preference
24. Which is the bias value of an unbiased estimator?
    b. 0   b. 1   c. 2   d. 3
25. Which is the popular estimating technique?
    a. RMSE   b. RMS   c. MSE   d. Jackknife
26. Which algorithm solves the estimation problem with incomplete data?
    a. Activation function b. Expectation Maximization c. Fitness Function d. Function
27. Which techniques illustrate several different features of the population at once?
    a. Box plot   b. Quartiles   c. Scatter diagram   d. Histogram
28. What does a initial hypothesis to be tested is called?
    a. Hypothesis   b. Rule   c. Null Hypothesis   d. Alternative Hypothesis
29. What does a rejection of the null hypothesis causes?
    a. Hypothesis   b. Rule   c. Null Hypothesis   d. Alternative Hypothesis
30. Which is used to predict future values based on past values by fitting a set of points to a curve?
    a. Regression   b. Correlation   c. Linear Regression   d. Predictors
31. Which coefficient relates the overlap to the average size of the two sets together?
    a. Dice   b. Jaccard   c. Cosine   d. Overlap
32. Which coefficient determines the degree to which the two sets overlap?
    a. Dice   b. Jaccard   c. Cosine   d. Overlap
33. Which is used to measure the unlike items?
    a. Similarity   b. Mapping   c. Difference   d. Distance
34. Which model uses divide and conquer techniques to split the problems?
    a. Decision Tree b. Neural Network c. Genetic Algorithm d. Artificial NN
35. Which node represents a successful as the object being predicted?
    a. Root   b. Non Leaf   c. Leaf   d. Parent
36. Which model is viewed as a directed graph with input, output and hidden nodes?
    a. Decision Tree b. Neural Network c. Genetic Algorithm d. Artificial NN
37. Which is the basic type of connectivity followed in neural networks?
    a. Feed Forward   b. Feed Back   c. Form Feed   d. Form Back

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38. How the arcs in the neural networks are labeled?
    a. w_i b. w_j c. w_k d. w_{ij}
39. Which is also called as activation function?
    a. Firing Rule   b. Processing   c. Fixing Rule   d. Fixed Rule
40. Which technique generates new individuals by switching subsequences of the strings?
    a. Chromosomes   b. Crossover   c. Mutation   d. Population
41. Which classification problem divides the input space into regions where each region is associated with one class?
    a. Specifying Boundaries   b. probability Distribution
    c. Priori Distribution   d. Posterior Distribution
42. Which is used to examine false alarm rates?
    a. OC   b.RPC   c. ORC   d. RCO
43. In which regression approach the formulas are generated to predict the output class value?
    a. Correlation   b. Division   c. Prediction   d. Classification
44. Which regression uses a logistic curve?
    a. Linear Regression b. Non Linear Regression c. Regression d. Logistic Regression
45. Which scheme is proposed based on bayes rule of conditional probability?
    a. Classification b.Naive Bayes Classification c. Clustering d. Bayes Classification
46. Which technique assumes that the entire training set includes not only the data but also the desired classification for each item?
    a. Bayes Classification   b. Naive Bayes Classification
    c. K Nearest Neighbours   d. Regression
47. Which is associated with the ordering of the attributes?
    a. Splits   b. Choosing Splits   c. Ordering Splits   d. Stopping Splits
48. Which phase removes redundant comparisons?
    a. Pruning   b. Splitting   c. Stopping   d. Training
49. Which technique generates a binary decision tree?
    a. C4.5   b. CART   c. SPRINT   d. ID3
50. Which technique attempts to minimize the expected number of comparisons?
    a. C4.5   b. CART   c. SPRINT   d. ID3
51. Which algorithm addresses the scalability issues?
    a. C4.5   b. CART   c. SPRINT   d. ID3
52. Which factor indicates the relative weight between 2 nodes?
    a. Interconnections   b. Weights   c. Sinks   d. Attributes
53. In which the weights of the arc are adjusted based on the performance of the tuple from the training set?
    a. Machine Learning   b. NN Supervised Learning
    c. Supervised Learning   d. Unsupervised Learning
54. Which network will have an NN with 3 layers?
    a. RBF   b.Propagation   c. Perception   d. Supervised NN
55. Which will have a single neuron with multiple inputs and one output?
    a. RBF   b.Propagation   c. Perception   d. Supervised NN

56. Which approach blends multiple techniques into a new approach?
   a. Synthesis   b. Independent   c. Multiple   d. CMC
57. What does the process of applying multiple independent approaches to a classification problem is called?
   a. Synthesis   b. Independent   c. Multiple   d. CMC
58. Which learning technique adjusts the weights in the NN by propagating weight changes backward from the sink to the source nodes?
   a. Propagation b. Forward Propagation c. Back propagation d. Feed Forward
59. Which summarizes the count of entries per class or attribute value grouping?
   a. AVC Table   b. Attributes   c. Values   d. Class
60. Which type of learning is used when an output is not known in advance?
   a. Supervised   b. Unsupervised   c. Machine Learning   d. Neural Networks
61. Which term is similar to Clustering?
   a. Database Segmentation   b. Parallel Clustering
   c. Segmentation   d. Partitional Clustering
62. Which algorithm use labeling of items to assist in the classification process?
   a. Extrinsic   b. Intrinsic   c. Hierarchical d. Partitional
63. Which algorithm does not use any Priori category labels?
   a. Extrinsic   b. Intrinsic   c. Hierarchical d. Partitional
64. Which attribute satisfies the triangular inequality?
   a. Metirc   b. Medoid   c. Centroid   d. Outliers
65. Which tree structure is used to represent the hierarchical clustering?
   a. Binary   b. Skewed   c. Spanning   d. Dendrogram
66. Which technique is used to in finding maximal connected components in a graph?
   a. Single Link   b. Complete Link   c. Average Link   d. Alternative Link
67. Which technique looks for cliques rather than connected components?
   a. Single Link   b. Complete Link   c. Average Link   d. Alternative Link
68. Which technique merges two clusters if the average distance between any two points in the target clusters is below the distance threshold?
   a. Single Link   b. Complete Link   c. Average Link   d. Alternative Link
69. Which algorithm start with each individual item in its own cluster and iteratively merge clusters until all item belongs to one cluster?
   a. Agglomerative   b. Divisive   c. Partitional   d. Hierarchical
70. In which clustering all items are initially placed in one cluster and clusters are repeatedly split into two until all items are in their own cluster?
   a. Agglomerative   b. Divisive   c. Partitional   d. Hierarchical
71. Which clustering is also called as non hierarchical clustering?
   a. Partitional   b. Divisive   c. Squared Error   d. Minimum Spanning Tree
72. In Which clustering algorithm, the item are moved among sets of cluster until the desired set is reached?
   a. Partitional   b. Divisive   c. K- Means   d. Squared Error
73. Which algorithm is similar to single link technique?
   a. PAM   b. Nearest Neighbour   c. Bond Energy   d. K-Mean
74. Which algorithm is also called K- Medoids algorithm?
   a. PAM   b. Nearest Neighbour   c. Bond Energy   d. K-Mean

75. Which parameter represents the number of neighbors of a node to which any specific node can be compared?
   a. Max Neighbor   b. NumLocal   c. Affinity   d. Fragment
76. Which parameter represents the number of samples to be taken?
   a. Max Neighbor   b. NumLocal   c. Affinity   d. Fragment
77. Which algorithm is applied on database to determine how to group data and how physically place data on disk?
   a. Bond Energy   b.PAM   c. K-Means   d. Squared Error
78. In which learning process, the weight between two nodes are changed to be proportional to both output value?
   a. Hebbian   b.Self-Organising   c.Kohonen   d. Competitive
79. Using which approach, the clusters are created with a minimum size and density?
   a. DBSCAN   b. BIRCH   c. CURE   d. CLARANS
80. Which algorithm has both a hierarchical and partitioning component?
   a. DBSCAN   b. BIRCH   c. CURE   d. CLARANS
81. What is meant by the percentage of transactions in which item occurs?
   a. Support   b. Association   c. Confidence   d. Strength
82. For which item set, the number of occurrence will be above threshold?
   a. Large   b. Small   c. Medium   d. Rules
83. What is meant by the ratio of the number of transactions that contains XUY to the number of transactions that contain X?
   a. Support   b. Association   c. Confidence   d. Strength
84. Which algorithm is the most well known association rule algorithm?
   a. Apriori   b. Priori   c. Sampling   d. Partitioning
85. Which algorithm improves the performance of finding large item sets?
   a. Apriori   b. Priori   c. Sampling   d. Partitioning
86. In which algorithm, the database is divided into p partitions, one for each processor?
   a. Data Parallelism   b. Task Parallelism   c. Sampling   d. Partitioning
87. In which algorithm, the candidates as well as the database are partitioned among the processors?
   a. Data Parallelism   b. Task Parallelism   c. Sampling   d. Partitioning
88. Which dimensions shows how to improve the performance of an algorithm?
   a. Optimization   b. Parallelism   c. Architecture   d. Technique
89. Which dimensions allows finding large item sets?
   a. Optimization   b. Parallelism   c. Architecture   d. Technique
90. Which is defined like a regular association rule with the restriction that no items in Y may be above any item in X?
   a. Generalized Association   b. Multiple level Association
   c. Quantitative Association   d. Qualitative Association
91. In which association rule, item sets may occur from any level in the hierarchy?
   a. Generalized Association   b. Multiple level Association
   c. Quantitative Association   d. Qualitative Association
92. Which association rule involves categorical and quantitative data?
   a. Generalized Association   b. Multiple level Association
   c. Quantitative Association   d. Qualitative Association

93. Which allows different support threshold to be indicated for each item?
    a. Apriori   b. Priori   c. MISApriori   d. MISPriori
94. Which defines the set of item sets that are correlated?
    a. Association Rule   b. Correlation Rule   c. Prediction Rule   d. Quantitative Rule
95. Which is the data parallelism algorithm?
    a. CDA   b. MIS   c. DDA   d. FUP
96. Which is the task parallelism algorithm?
    a. CDA   b. MIS   c. DDA   d. FUP
97. Which incremental approach is based on the apriori algorithm?
    a. CDA   b. MIS   c. DDA   d. FUP
98. In which field the association rules are frequently used?
    a. Marketing   b. Financial   c. Medical   d. Agriculture
99. Which algorithm is used to generate the candidate item sets for each pass after the first?
    a. Apriori   b. Apriori-Gen   c. Priori   d. Priori-Gen
100. Which functions are applied for determining additional candidates?
    a. Activation Function   b. Fitness Function
    c. Negative Border Function   d. Positive Border Function

SECTION - B

1. Define Data mining and its characteristics.

2. Difference between Data mining access and Traditional access of database.

3. Discuss about Predictive Model.

4. Write short note on Descriptive Model.

5. List out the different types of Visualization Techniques.

6. Discuss about Classification.

7. What is Data Mining Metrics?

8. What are the Social Implications of Data Mining?

9. What do you think of data mining from a database perspective?

10. Give a brief note on Clustering.

11. Discuss about Parametric and Non Parametric models.

12. Write short note on Models based on Summarization.

13. What do you mean by Hypothesis testing? Give an example.

14. What are Similarity measures?

15. Briefly discuss about Decision Trees.

16. Define Neural Network.

17. Discuss about Mean Squared Error and Root Mean Square.

18. Write short note on Activation Functions.

19. Write the Expectation Maximization Algorithm.

20. Give a brief note on Distance Measures.

21. Define Classification. What are basic methods used to solve classification problems?

22. What are the issues in Classification?

23. Write short note on Bayesian Classification.

24. Give an example for Classification using Division.

25. Give an example for Classification using Prediction.

26. Write short note on K-Nearest Neighbors.

27. What are the Issues faced by DT Algorithms?

28. What are the Issues to be examined in NN Based Algorithms?

29. Write short note on Combining Techniques.

30. Write short note on Radial Basis Function Networks.

31. Give examples for different Clustering Attributes.

32. Discuss about Similarity and Distance Measures.

33. Write short note on Outliers.

34. Discuss about K-Means Clustering.

35. Write short note on Divisive Clustering.

36. Write short note on Clustering with Genetic Algorithms.

37. What do you mean by Bond Energy Algorithm?

38. Compare some of the important Clustering Algorithms.

39. What are the problems occurred when applying clustering to real world database?

40. Briefly discuss about Clustering Large Databases.

41. What do you mean by Association Rules?

42. What do you mean by Partitioning?

43. Give a brief note on Parallel and Distributed Algorithm.

44. List out the Dimensions of Algorithm based on which it is classified.

45. Discuss about the Incremental Rules.

46. Write short note on Correlation Rules.

47. What are the Advanced Association Rule Techniques?

48. List out the basic algorithms of the Association Rule with examples.

49. List out the areas in which the Association Rules are applied.

50. How do you measure the Quality of Rules?

SECTION - C

1. Explain in detail about Data Mining.

2. Explain basic Data Mining tasks in detail with an example.

3. Discuss about Predictive Data Mining tasks in detail.

4. Explain in detail about Descriptive Data Mining Tasks.

5. Discuss about the steps in KDD process in detail.

6. Give a detailed note about Data Mining versus Knowledge Discovery in Database.

7. Discuss in detail about the development of Data Mining.

8. List out the Data Mining Issues in detail

9. Illustrate in detail about the Data Mining Metrics and Social Implications of Data Mining.

10. Discuss in detail about Regression and Prediction.

11. Illustrate in detail about Point Estimation with an example.

12. Discuss in detail about the Bayes Theorem with an example.

13. Elaborate about the Regression and Correlation..

14. Explain in detail about Decision Trees.

15. Explain in detail about Neural Networks.

16. Discuss in detail about the Genetic Algorithm.

17. Illustrate about Decision Tree Algorithm in detail with an algorithm.

18. Discuss in detail about the Genetic Algorithm and Fitness Function.

19. List out the Similarity and Dissimilarity Measures in detail.

20. What do you mean by a Statistical perspective on Data Mining?

21. Illustrate about the Classification in detail.

22. Explain in detail about Regression.

23. What do you mean by Distance based algorithm?

24. Illustrate in detail about ID3 algorithm.

25. Discuss about C4.5 and CART techniques of DT in detail.

26. Discuss in detail about the NN Supervised Learning.

27. How do you generate rules from DT and a Neural Network?

28. How to generate rules Without DT or NN?

29. Illustrate in detail about Neural Networks.

30. Explain in detail about Propagation and Perceptions.

31. Explain in detail with an example the Hierarchical Algorithms.

32. Give an example for Clustering with Categorical Attributes and explain in detail.

33. Illustrate in detail about Agglomerative Algorithm

34. Explain in detail about Partitional Algorithms

35. Discuss about the Minimum Spanning Tree and Squared Error Clustering Algorithm

36. Explain in detail about Clustering with Neural Networks.

37. Explain DBScan Algorithm in detail.

38. Discuss in detail about the CURE Algorithm.

39. Explain in detail about the Clustering.

40. What do you mean by BIRCH? Explain in detail.

41. Explain in detail about Large Item set.

42. Explain about Apriori algorithm in detail with an example.

43. Discuss about the Sampling Algorithm in detail with an example.

44. Illustrate Data Parallelism algorithm in detail.

45. Explain in detail about Task Parallelism.

46. Discuss about Generalized and Multiple level Association Rules in detail.

47. Discuss in detail about the Quantitative Association Rules and Using Multiple Minimum Supports.

48. Illustrate about Parallel and Distributed Algorithms in detail.

49. What are the Comparing Approaches? Discuss in detail.

50. List out the Basic Algorithms in detail.

1. d	45. a	90. c
2. d	46. b	91. b
3. b	47. b	92. b
4. c	48. d	93. c
5. b	49. a	94. d
6. b	50. b	95. d
7. b	51. a	96. d
8. d	52. a	97. b
9. d	53. a	98. a
10. c	54. a	99. a
11. b	55. d	100. a
12. a	56. a	
13. c	57. c	
14. d	58. a	
15. c	59. c	
16. a	60. a	
17. b	61. d	
18. c	62. a	
19. b	63. d	
20. c	64. a	
21. a	65. a	
22. a	66. b	
23. a	67. a	
24. c	68. b	
25. a	69. c	
26. b	70. b	
27. c	71. c	
28. a	72. a	
29. d	73. b	
30. a	74. a	
31. a	75. a	
32. b	76. a	
33. d	77. a	
34. d	78. c	
35. a	79. b	
36. c	80. c	
37. a	81. a	
38. a	82. c	
39. b	83. d	
40. c	84. d	
41. a	85. b	
42. a	86. a	
43. d	87. a	
44. a	88. c	
	89. b	

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QUESTION BANK

Subject code   :   **16UIT5E1**

Title of the paper   :   **EMBEDDED SYSTEMS**

DEPARTMENT OF INFORMATION TECHNOLOGY

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SECTION-A

Choose the correct answer

1. Microcontroller is also known as

   a) Microprocessor   b) Microcomputer   c) Minicomputers   d) Embedded systems

2. Final stage s/w is called as

   a)Rom-image   b) ROM   c) RTOS   d) ISR

3. An assembler translates an assembly language code into a machine code using the step called as

   a) Loading   b) Assembling   c) Linking   d) Translating

4. The process in which the linker links the codes with other required assembled code is called as

   a) Assembling   b) Linking   c) Loading   d) Locating

5. The process of placing the codes in ROM or EPROM is called as

   a) Burning   b) Assembling   c) Loading   d) Translating

6. SoC is

   a) System on Chip   b) System   c) Standard source   d) System chip

7. The process for locating the codes as ROM-image & placing them at the actually available place in the

   ROM is

   a) Loading   b) Assembling   c) Locating   d) Linking

8. The tool for dynamically tracking the changes in any program variable is

   a) RTOS   b) Stethoscope   c) trace scope   d) simulator

9. The tool which helps in tracing the changes in the module & tasks with time on the x- axis is

   a) Trace scope   b) stethoscope   c) simulator   d) cross assembler

11. Which takes the I/P from various channels & transfers the I/P from a selected channel to a system.

   a) Multiplexer   b) Demultiplexer   c) Decoder   d) Encoder

12. Which is the OS for real time programming

    a) POSIX   b) RTOS   c) DOS   d) UNIX

13. A processor state in which the processor registers acquire initial values from which starts an initial program is

    a) Reset   b) Set   c) Both   d) None

14. A fast read & writes on-chip unit for the processor execution unit is called

    a) Cache memory   b) Virtual memory   c) Associative memory   d) None

15. UART stands for

    a) Universal Asynchronous Receiver and Transmitter   b) Uniform Asynchronous Receiver and Transmitter   c) Universal Asynchronous Reader and Transmitter

    d) Universal Active Receiver and Transmitter

16. A diode that absorbs or emits light on application of 3 to 4 V,50 or 60 Hz voltage a pulse with current is

    a) LED   b) LCD   c) LDE   d) LCE

17. A digital circuit that has digital I/Ps from multiple channels is called as

    a) Multiplexer   b) Demultiplexer   c) Decoder   d) Encoder

18. A data structure which sent a byte stream from a data source & which delivers the stream to the data sink is

    a) Stack   b) Pipe   c) Linked List   d) Queue

19. PWM stands for

    a) Pulse width Modulator   b) Pipe width Modulator   c) Pulse width Moderation

    d) Pulse word Modulator

20. FPGA is

    a) Field Programmable Gate Array   b) Field Programmable Ground Array

    c) Fine Programmable Gate Array   d) Field Processor Gate Array

21. A standard bus that is used as a peripheral component inter connect bus is.

   a) PCI-Bus   b) CAN-Bus   c) ISA-Bus   d) USB-Bus

22. IPR stands for

   a) Interrupt Pending Register   b) Interrupt Processing Register   c) Interrupt Pending Request

   d) Interrupt Pension Register

23. An action blocked for a certain pre-defined period.

   a) Event   b) Ready   c) Delay   d) Running

24. A port for read & write operations on multiple bits at an instance.

   a) Parallel port   b) Serial port   c) Serial UART-i/p port   d) Serial UART o/p port

25. A period for waiting for the service after a service demand is raised is

   a) Interrupt latency   b) Deadlock   c) Throughput   d) None

26. The signal before storing the bits at the port buffer or before accepting the bits from the port buffer

   a) O/P buffer signal   b) I/P buffer signal   c) Handshaking signals   d) Serial port signal

27. A clock that continuously generates interrupts at regular intervals endlessly.

   a) System clock   b) Real time clock   c) Device clock   d) Timer

28. A line used for transmission of UART- serial bits is.

   a) RxD   b) TxD   c) UART   d) Com-port

29. Which includes a program counter as well as the program status word, stack pointer and processor
   registers.

   a) Context   b) Program Counter   c) Preemption   d) Dead line

30. A port at the computer where a mouse, modem or serial printer connects.

   a) Com-port   b) RS232C-port   c) I/P-port   d) Serial port

31. A communication in which a constant phase difference is maintained between clocks that guide the
   transmitter & the receiver is

   a) Synchronous   b) Asynchronous   c) Half duplex   d) Duplex

32. FSK stands for

   a) Frequency shifted keying   b) Frequency sequence keying   c) Forbidden shifted keying

   d) Frequency synchronous keying

33. QPSK stands for

   a) Quadrature phase shifted keying   b) Quadraple phase shifted keying   c) Quadrature program

      shifted keying   d) Quadrature phase sequencer keying

34. A standard bus used as PCI-extended bus is

   a) PCI/ X bus   b) PCB/ X bus   c) PCI/ Y bus   d) PCB/Y bus

35. A shift registers for a serial parallel I/P & parallel O/P is

   a) SIPO   b) PISO   c) PIPO   d) SISO

36. A change of present condition is called as an

   a) Event   b) Latency   c) Context   d) Switching

37. A state in which the timer shows all bits as 0's & 1's is

   a) Timer reload   b) Timer load   c) Timer Reset   d) Timer Set

38. A unit for getting the count I/P on the occurrence of event that may be at irregular intervals is

   a) Counter   b) Register   c) Flip Flop   d) Multiplexer

39. A s/w that executes & increases or decreases a count variable on a an interrupt from a timer o/p

   a) Software Timer   b) Hardware Timer   c) Counter   d) Timeline

40. IPR stands for

   a) Interrupt Pending Register   b) Interrupt Processing Register   c) Interrupt Pending Request

   d) None

41. A graphical modeling tool.

    a) Petrinet   b) CDFG   c) DFG   d) HSDFG

42. A circle in pertinent represents

    a) Node-place   b) Node transition   c) Idle state   d) Graph

43. When there is only one token at the I/P, & one at the O/P, an SDFG is a

   a) HSDFG   b) CDFG   c) DFG   d) APEG

44. A precedence of vertices in a directed graph such that there is no delay at the arcs.

   a) Acrylic precedence   b) Precedence   c) HSDFG   d) SDFG

45. Probabilistic timed Petrinet are also called as

   a) Timed petrinet   b) Predicate   c) Transition net models   d) Sthcochastic petrinets

46. A system with s/w consisting of multiple threads with some controlling and scheduling mechanism.

   a) Multithread system   b) FSM   c) Petrinet   d) Token

47. Static scheduling is done at the

   a) Runtime   b) Compilation time   c) Seek time   d) Latency time

48. When each vertex computation occurs such that the precedence constraints are maintained is called

   a) Static scheduling   b) Dynamic scheduling c) Runtime scheduling d) Compile time scheduling

49. Vertices or circles in the graph are called as

   a) Actors   b) Edges   c) Transitions   d) Graphs

50. In SDFG the delay is represented by

   a) Dot in the edges   b) Edges   c) Actors   d) Tokens

51. A system with two or more processors for faster execution of the program or tasks is a

   a) Multiprocessor system   b) Multitask system c) Multiple system   d) Multiprogramming system

52. Allocation of different vertices or sub-graphs on different processors is

   a) Scheduling   b) Allocating   c) Partitioning   d) Processing

53. A thread or its part that has a number of processes & instructions threaded together is called

   a) Macro thread   b) Micro thread   c) Thread   d) Token

54. Time taken for execution at a vertex or at a sub-graph or micro thread is

   a) Performance   b) Performance cost   c) Total performance d) Total performance cost

55. Repeated synchronization by suitable mathematical analysis, reducing the no of IPCs is called

   a) Synchronization   b) Resynchronization   c) Is synchronous   d) Asynchronous

56. Which is a DFG model when the assignment to an I/P is fixed.

   a) Petrinet   b) ADFG   c) DFG   d) HSDFG

57. A model in which there are finite states.

   a) Petrinet   b) CDFG   c) DFG   d) Finite state Machine

58. VLIW is

   a) Data   b) Word   c) Command   d) Instruction

59. Which is a process or state of codes that carry a program state from one to another?

   a) State transition   b) Code Transition   c) Node Transition   d) None

60. Which is a table it represents the Petrinets.

   a) Petri Table   b) State Table   c) Transition Table   d) Node Table

61. A minimum unit for a scheduler to schedule the CPU and other system resources.

   a) Thread   b) Function   c) Task   d) State

62. A special variable used to take note of certain actions to prevent another task or process from proceeding

   a) Thread b) Semaphore c)Semaphore   d) Pipe

63. RPC stands for

   a) Recursion procedure   b) Remote procedure call   c) Remote login   d) Recursion process

64. A message or message pointer from a task that is addressed to another task.

   a) Function b) Stack c) Socket   d) Mailbox

65. A sending the messages used by and another task using these as I/P.

   a) Pipe   b) File   c) Bus   d) Transition

66. A state of a task that changes on scheduler directions.

   a) State   b) Task state c) Transformation d) Transition

67. TCB stands for

   a) Task control Block   b) Thread control Block   c) Task central Block   d) Thread central Block

68. PCB stands for

   a) Process Control Block   b) Program Control Block

   c) Processor Central Block   d) Processor Control Block

69. Which is a memory block for a queue or list of messages between an O/P- source & an I/P-sink.

   a) Buffer   b) Cache   c) Register   d) Segment

70. Which is a sequentially executing program & its state.

   a) Process   b) Task   c) Thread   d) None

71. Which semaphore is used to value which can be incremented and decremented and which is not a

   Boolean value.

   a) Mutex   b) Binary Semaphore   c) P Semaphore   d) N Semaphore

72. Helps in mutual exclusion of one task with respect to another by a scheduler in multitasking operations.

   a) Counting semaphore   b) Binary Semaphore   c) P Semaphore   d) None

73. Which is a client-server or peer-to-peer type of IPC.

   a) Socket   b) RPC   c) Process   d) Deadlock

74. Which provides the shortest message?

   a) Signal   b) Socket   c) Process   d) Buffer

75. May be a structured record on a RAM analogous to a disk and may also be either separately called

   RAM-disk.

   a) File   b) Stack   c) Queue   d) None

76. An OS that has functions for protocol stacks plus n/w device drivers.

   a) NOS   b) MULTOS   c) MSDOS   d) Unix

77. Each ready task cooperates to let a running one finish task is

   a) Cooperative   b) Preemption   c) Mutual Exclusion   d) None

78. If the scheduler cannot fix the schedules, it is called as a

   a) Non-deterministic situation   b) Deterministic situation   c) Known situation

   d) Unknown situation

79. In which method reasoning or past experience helps to define and fix the schedules.

   a) Heuristic Method   b) Non-deterministic   c) Hypothetic   d) Historic

80. Is a method in which the different schedules can be fixed and the performance is simulated?

   a) Simulated Annealing Method   b) Simulated Method   c) Scheduling Method   d) Timed method

81. A circuit which emulates the target system

   a) Emulator   b) Assembler   c) ICE   d) Translator

82. A plan for action for the development process

   a) Action   b) Action Plan   c) Target   d) Phase

83. An ordering in which the lowest byte of a no is taken as first

   a) Little Endian   b) Big Endian   c) Bitrate   d) Burning

84. CAN stands for

   a) Controller Area Network b) Central Area Network   c) Control Associated Network

   d) Carrier Area Network

85. A tool for obtaining higher level codes from the machine code, which were assembled earlier.

   a) Assembler   b) Dissembler   c) Compiler   d) Interpreter

86. Time taken to activate after an event or time taken in finishing certain codes before next one starts.

   a) Seek Time   b) Access Time   c) Latency   d) Burning

87. An act of placing the ROM-image for code and data in uncompressed or compressed format in to

   an EPROM or EEPROM.

   a) Burning   b) Compiling   c) Loading   d) Assembling

88. A programmable unit to perform sequential logic control functions.

   a) PCI   b) UML   c) PLC   d) VLIW

89. No of processes or specified functions executed per unit time.

    a) Latency   b) ROM-image   c) Life-cycle   d) Throughput

90. A scope with a screen to display two signal voltages as a function of time.

    a) Oscilloscope   b) Stethoscope   c) Rouge wave   d) PLC

91. An assembler that assembles code for host machine for simulation & other purposed and later

    generates assembled code for the targeted processors.

    a) Assembler   b)Dissembler   c) Cross-assembler   d)Interpreter

92. A meter to measure throughput in bits per second and to count the 1s & 0s during a particular

    Interval of time.

    a) Bit rate meter   b) Stethoscope   c) Oscilloscope   d) Translator

93. PIN stands for

    a) Personal identification Number   b) Peer identification Number

    c) Personal identity Number d) Public Identity Number

94. Smart card is plastic card in ISO standard dimensions

    a) 85.6mm x 53.98 x 0.80mm   b) 85.6mm x 63.98 x 0.80mm

    c) 85.6mm x 53.98 x 0.90mm   d) 86.5mm x 53.98 x 0.80mm

95. A bit at the ROM, which the processor uses for not letting the instructions and data in the protected

    Part on the system buses.

    a) Start Bit   b) Protection Bit   c) Stop Bit   d) None

96. TTP stands for

    a) Time Triggered Protocol   b) Transport Triggered Protocol

    c) Time Transport Protocol   d) Travel Time Protocol

97. An algorithm that uses the prime number

    a) DES   b) RSA   c) SHA   d) None

98. A key embedded in ROM at the time of card fabrication so that the card gets a unique identity.

    a) Fabrication Key   b) Identity Key   c) Personalization Key   d) Primary Key

99. An operating system for automobile embedded system software

    a) MULTOS   b) Unix   c) Linux   d) OSEK-OS

100. A Java language format for smart card applications

    a) Java Card   b) JVM Card   c) Network Card   d) JSS Card

SECTION – B

1. Define a system & embedded system? Explain

2. Write short notes on micro processor, micro controller?

3. What is DSP, GPP, ASSP, ASIP, and FPGA?

4. Write short notes on register, reset circuit, cache memory?

5. What is ADC, PWM, DAC, and LCD?

6. Define multiplexer, de-multiplexer?

7. What is a compiler, interpreter, and assembler?

8. What is SOC? What are the components of SOC?

9. What is a Linker, Loader, and Locator?

10. What is a device programmer? Explain

11. What are the types of I/O devices?

12. What is issynchronous communication? Explain.

13. Explain asynchronous communication.

14. What are counting devices?

15. How does the interrupt mechanism work? Describe the interrupt vector table.

16. What is device driver, Explain device driver ISR.

17. What is a virtual device? Explain.

18. What is a serial port? Explain.

19. What is a buffer? Where is it used?

20. Write short note on a COM port?

21. Discuss about the concept of Software Engineering in embedded system.

22. What are the steps in Software Development Life Cycle?

23. Explain RAD model.

24. Explain Incremental model.

25. Explain Fourth Generation Language (4GL) model.

26. Write brief notes on Software Analysis?

27. Write brief notes on Software Design?

28. Write short notes on ADL?

29. What do you mean by Software Implementation? Discuss.

30. Discuss on Software Testing.

31. Define process, task, and thread.

32. What is semaphore? What are types of semaphores?

33. Explain priority inversion problem and give a solution for it.

34. What is a mail box, Socket, RPC?

35. Explain about synchronization in detail.

36. What is PCB, TCB? What is the use of it?

37. Define Kernel, OS, and RTOS?

38. List the types of scheduling.

39. What is a Linux OS? Discuss about the features of Linux OS.

40. List some of the basic OS services.

41. What is an RTC? Explain its usage.

42. What is SCI? Explain.

43. Write short note on ACC?

44. Discuss about the embedded software in a smart card?

45. Discuss on embedded system project management?

46. What is an action plan? Explain.

47. Explain about conceptual design.

48. Explain about detailed design.

49. What is a targeted system, emulator, ICE?

50. What is MIP, MFLOP? Explain.

SECTION – C

1. Explain an embedded system with suitable example.

2. What is the use of processor in an embedded system?

3. What are classifications of embedded system? Explain in detail.

4. Explain the other hardware units in an embedded system.

5. Write about how software is embedded into a system.

6. Explain system on chip and in VLSI circuit used in exemplary embedded system.

7. Explain processor selection for an embedded system.

8. Discuss about the structural units in a processor in detail.

9. Discuss about four exemplary cases hardware units.

10. Discuss about four exemplary cases processors.

11. Explain about I/O devices in detail.

12. Explain synchronous communication.

13. List some useful Linux device drivers.

14. What is a timer? List the types of Timer.

15. What are the assigned priorities for the hardware and software?

16. Explain about parallel port devices.

17. What are timers and counting devices? Explain.

18. Explain about device drivers in detail.

19. What are the parallel port device drivers in an embedded system? Explain.

20. Explain about device drivers for internal programming timing devices.

21. Explain SDFG model.

22. Explain HSBFG model

23. Explain APEG model

24. What are the real-time programming issues in software development process? Explain.

25. What is timed and extended Petri nets?

26. Explain modeling processes for software analysis before software implementation.

27. Explain the programming models for event controlled or response time constrained real time programs.

28. How to model the microprocessor systems? Explain.

29. Explain the Software development process life cycle and its models.

30. Explain software analysis and software design in detail.

31. How to handle multiple processes in an application? Explain.

32. Discuss the problem of sharing data by multiple tasks and routines.

33. Write short note on   a. P & V Semaphore   b.Mutex   c. Counting Semaphore

34. Explain Inter Process Communication with suitable examples.

35. Explain the Real-time embedded system OS with examples.

36. How are the interrupt routines in RTOS environment handled?

37. Explain the RTOS task scheduling models, latency and response times of the tasks as Performance metrics.

38. Discuss the performance metric in scheduling models for periodic, sporadic and a periodic tasks.

39. Explain the concept of Performance modeling.

40. Discuss about Co-operative scheduling?

41. Discuss embedded system project management in detail.

42. Discuss about 4P's involved in software project management.

43. What do you mean by exemplary prototype development?

44. What do you mean by hardware-software trade-off?

45. What are the embedded system design and co-design issues in system development process? Explain.

46. Explain the design cycle in the development phase for an embedded system.

47. Discuss the uses of targeted system, emulator and in-circuit emulator in detail.

48. Explain the usage of software tools for development of an embedded system.

49. Explain the use of scopes and logic analyzers for system hardware tests.

50. What are the issues in embedded system design? Explain.

KEY ANSWERS

1. b)	2. a)	3. b)	4. b)	5. a)	6. a)	7. c)	8. c)	9. b)	10. a)
11. a)	81. a)	13. b)	14. a)	15. a)	16. a)	17. a)	18. b)	19. a)	20. a)
21. a)	22. b)	23. c)	24. a)	25. b)	26. c)	27. b)	28. b)	29. a)	30. d)
31. a)	32. a)	33. a)	34. a)	35. a)	36. b)	37. a)	38. a)	39. a)	40. a)
41. a)	42. a)	43. a)	44. a)	45. d)	46. d)	47. b)	48. b)	49. a)	50. a)
51. a)	52. a)	53. a)	54. a)	55. b)	56. b)	57. d)	58. d)	59. a)	60. a)
61. a)	62. b)	63. b)	64. d)	65. d)	66. b)	67. a)	68. a)	69. a)	70. a)
71. a)	72. a)	73. a)	74. a)	75. a)	76. a)	77. a)	78. a)	79. a)	80. a)
81.a)	82. b)	83. a)	84. a)	85. b)	86. c)	87. a)	88. c)	89. d)	90. a)
91. c)	92. a)	93. a)	94. a)	95. b)	96. a)	97. b)	98. a)	99. d)	100. a)

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QUESTION BANK

Subject code   :   **15UIT4A4**

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DEPARTMENT OF INFORMATION TECHNOLOGY

JANUARY 2019

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4	KEY ANSWERS	18

KASC-Information Technology

SECTION A

1. Which is a weakness in the security system?

    a) Threads   b) Attacks   c) Vulnerabilities   d) Controls

2. How many valuable components are there in computer system?

    a) 3   b) 2   c) 4   d) 5

3. How many kinds of threads in a computing system?

    a) 4   b) 2   c) 3   d) 5

4. What the MOM standard for?

    a) Method of Messaging   b) Message of Motive

    c) Message Object Motive   d) Method Object Motive

5. How many aspect resides in a computer related system?

    a) 3   b) 2   c) 4   d) 5

6. Which is a harder than confidentiality?

    a) Availability   b) Vulnerabilities   c) Integrity   d) Threads

7. Which is an opposite of denial of service?

    a) Availability   b) Confidentiality   c) Integrity   d) Threads

8. How many types of separations available in security of a system?

    a) 3   b) 2   c) 5   d) 4

9. Which is the simplest form of protection?

    a) Relocation   b) Fence   c) Segmentation   d) Paging

10. Program is divided into equal size of pieces is known as

    a) Pages   b) Capability   c) Domain   d) Kerberos

11. How many kind of users are there in an operating systems?

    a) 3   b) 4   c) 2   d) 5

12. The basis for group membership is

    a) User to share   b) Need to share   c) All to share   d) Rise of share

13. How many protection classes in access control list?

    a) 4   b) 5   c) 2   d) 3

14. Memory is divided into equal size of units is known as

    a) Pages   b) Page memory   c) Page frame   d) Page segment

15. Which is a collection of local data values?

    a) Pages   b) Segmentation   c) Fence   d) Relocation

16. Which register is used in upper limit address?

    a) Boundary   b) Base   c) Fence   d) Relocation

17. Which register is used in lower limit address?

    a) Boundary   b) Base   c) Fence   d) Relocation

18. List of files are called
    a) Directory   b) Objects   c) Offset   d) Pages
19. Which is a fixed size in operating system?
    a) Relocation   b) Fence   c) Segment   d) Pages
20. What is a TGM standard for?
    a) Ticket Granting Service   b) Ticket Granting Server
    c) Ticket Granting Show   d) Ticket Guide Service
21. Quality in security has been
    a) Fixing faults   b) buffer over flow   c) flaws   d) unexpected behavior
22. How many types are flaws in security?
    a) 6   b) 7   c) 4   d) 5
23. Which is a hard to defect?
    a) Virus   b) Memory   c) Data   d) Program

24. Which can be a mistake in interpreting a requirement?
    a) Fault   b) Virus   c) Error   d) Bug
25. Which is the general name for unanticipated?
    a) Malicious code   b) Memory resident virus   c) Trojans   d) Boot Sector Virus

26. Which can be either transient or resident?
    a) Trojans   b) Flaws   c) Virus   d) Bug

27. Which locates itself in memory?
    a) Resident virus   b) Boot Sector Virus   c) Memory resident virus   d) Trojans
28. Which is a class of malicious code?
    a) Trojans   b) Trap door   c) Worm   d) Logic bomb
29. Which is a program that spreads copies of itself through a network?
    a) Virus   b) Worm   c) Bugs   d) Flaws

30. Which is an undocumented entry point to a module?
    a) Trap door   b) Bugs   c) Memory   d) Data

31. Which is a piece of malicious code?
    a) Logic bomb   b) Signature   c) Root kit   d) Virus code
32. Which is another characteristic of modular software?
    a) Encapsulation   b) Information hiding   c) Components   d) Data
33. Which is the process of dividing a task into subtasks?
    a) Root kit   b) Encapsulation   c) Components   d) Modularization
34. How many controls that could be applied to detect or prevent salami attacks?
    a) 4   b) 5   c) 3   d) 6
35. Which virus can change its appearance?
    a) Resident virus   b) Polymorphic virus   c) Memory resident virus   d) Boot Sector Virus

36. How many mode of transmission in Trojan malicious code?
    a) 6   b) 3   c) 4   d) 5
37. Which is an example of macro virus?

a) Error checking   b) Testing   c) Root kits   d) Application program

38. What the TSR standard for?

     a) Terminate and Stay Resident Routines   b) Terminate Search Root kits

     c) Trojan & Search Root kits   d) Trojan & Stay Resident Routines

39. How many types of Trojan is there in a computing system?

     a) 8   b) 7   c) 6   d) 3

40. Which is a logic bomb whose trigger is a time or date?

     a) Trojan   b) Time bomb   c) Root kit   d) Virus code

41.   Which one is a collection of data and a set of rules that organize data by specifying certain relationship among the data?

     a) Database   b) Front end   c) Application   d)Program

42.   The logical structure of a database is called

     a) Sub schema   b) Schema   c) Abstraction   d) Instance

43.   Particular user may have access to only part of the database is called

     a) Sub schema   b) Schema   c) Abstraction   d) Instance

44.   The name of each column in data base is known as

     a) Attribute   b) tuple   c) relation   d) Schema

45.   The set of column is known as

     a) Tuple   b) relation   c) schema   d) attribute

46.   A command in a database is known as

     a) Query   b) relation   c)) schema   d) attribute

47.   Many users can use one common, centralized set of data is

     a)consistency   b) Integrity   c) Controlled access   d) Shared access

48.   This is a change to a data value affects all users of the data value

     a)consistency   b) Integrity   c) Controlled access   d) Shared access

49.   The data values are protected against accidental or malicious undesirable changes is

     a)consistency   b) Integrity   c) Controlled access   d) Shared access

50.   Only authorised users are allowed to view or modify data value is

     a) consistency   b) Integrity   c) Controlled access   d) Shared access

51.   The data contained in each element are accurate is

a)   Element integrity   b) availability   c) Subsystem   d) Sub Function

52.   The users can access the database in general and all the data for which they are authorised

     a)availability   b) integrity   c) confidentiality   d) auditability

53.   How many requirements are needed for database security?

     a)5   b) 10   c) 6   d) 12

54.   The problem of obtaining data values from others is called

     a)availability   b) inference   c) integrity   d) auditability

55.   This is concern with database as a whole is protected against from damage

     a) database integrity   b) element integrity   c) element accuracy   d) reliability

56.   This is concern with the value of specific data element is changed only by authorised user

     a) database integrity   b) element integrity   c) element accuracy   d) reliability

57. This is concern that only correct values are written into the elements of a database.
a) database integrity   b) element integrity c) element accuracy   d) reliability
58. The first phase of update technique is
a) Intent phase   b) committing flag   c) monitor   d) shadow field
59. The unit of a DBMS responsible for the structural integrity of the database
a) Intent   b) committing flag   c) monitor   d) transition constraints
60. The condition of entire database is
a) Monitor   b) Intent   c) transition   d) State constraints
61. A single computing system in a network is often called
a) host   b) node   c) work station   d) link
62. A connection between two hosts is known as
a) host   b) node   c) work station   d) link
63. Which device is an end user device, usually designed for a single user at a time?
a) host   b) node   c) work station   d) link
64. The way a network configured, in terms of nodes and connections is called the network is
a) topology   b) node   c) work station   d) link
65. The most common network communication medium is
a) wire   b) satellite   c) coaxial cable   d) UTP
66. Ethernet carrying up to
a) 200 Mbps   b) 100 Mbps   c) 500 Mbps   d) 1000 Mbps
67. The bandwidth of optical fiber us up to
a) 200 Mbps   b) 100 Mbps   c) 1000 Mbps   d) 500 Mbps
68. The user level data activity is comes in
a) Session   b) Application c) Network   d) Physical
69. The sessions or logical connections between parts of an application
a) Session   b) Application c) Network   d) Physical
70. The routing, message blocking into uniformly sized packets is
a) Session   b) Application c) Network   d) Physical
71. Which is not a characteristic of a LAN?
a) Small   b) Limited scope   c) Locally controlled d) Single control
72. Which is not a characteristic of a WAN?
a) Single control   b) Physically exposed c) Covers a significant distance d) small
73. Which is not a characteristic of an Internet?
a) Federation   b) Enormous   c) Heterogeneous   d) Small
74. Which one host pretends to be another?
a) Masquerade   b) Session hijacking c) Phishing   d) Pinging
75. Which one is intercepting and carrying on a sessions begun by another entity?
a) Masquerade   b) Session hijacking c) Phishing   d) Pinging
76. Which one is a simple attack?
a) Ping of death   b) Smurf   c) Syn flood   d) Echo – Chargen

77. Which attack is a variation of a ping attack?
a)Ping of death   b) Smurf c) Syn flood   d) Echo - Chargen
78. Which is an attack between two hosts?
a) Ping of death   b) Smurf c) Syn flood   d) Echo - Chargen
79. Which is an IDS runs on a single workstation or client or host to protect that one host?
a)Host - based b) Signature based   c) Network based d) Anomaly based
80. Which is an IDS performs simple pattern matching?
a)Host - based b) Signature based   c) Network based d) Anomaly based

81. Which one protects the expression of ideas?
a) Copy rights b) Piracy   c) Patents   d) Trade secrets

82. Protecting inventions, tangible objects or ways to make them not works of the mind is
a) Copy rights b) Piracy   c) Patents   d) Trade secrets

83. Which is information that gives one company a competitive edge over others?
a) Copy rights b) Piracy   c) Patents   d) Trade secrets

84. Which is a law that states explicitly that certain actions are illegal?
a) Copy rights b) Piracy   c) Statutes   d) Trade secrets

85. How many things a contract must involves?
a) one   b) two   c) three   d) Four

86. Which theory of ethics focuses on the consequences of an action?
a) Teleological b) Egoism   c) Utilitarianism   d) Deontology

87. Which is the form that says moral judgment based on positive benefits to person's decision?
a) Teleological b) Egoism   c) Utilitarianism   d) Deontology

88. Which is an assignment of good and bad results, but the reference group in entire universe?
a) Teleological b) Egoism   c) Utilitarianism   d) Deontology

89. Which is founded in a sense of duty?
a) Teleological b) Egoism   c) Utilitarianism   d) Deontology

90. Which is thankfulness for previous services or kind acts?
a) Reparation b) fidelity   c) gratitude   d) justice
91. Which one is a truthfulness?
a) Reparation b) fidelity   c) gratitude   d) justice
92. Which one is not harming others?
a) Reparation b) fidelity   c) gratitude   d) nonmaleficence
93. The seriousness of the vulnerability and apply appropriate protection is
a) full disclosure   b) partial disclosure c) no disclosure d) Twice disclosure
94. The general nature of the vulnerability is

a) full disclosure   b) partial disclosure   c) no disclosure d) Twice disclosure

95. Which is a common example of tort law?
 a) Fraud   b) Cheating   c) robbery   d) Murder

96. Which is an item of cost to produce another after having produced some already?
    a) Marginal cost   b) Minimal cost   c) Target cost d) Production cost
97. The duration of patent is
    a) 19 years   b) 50 years   c) 70 years   d) 5 years
98. The duration of trade secret is
    a) 19 years   b) 50 years   c) 70 years   d) indefinite
99. An abbreviation of DMCA is
    a) Digital Micro Copyright Act   b) Digital Millennium Copyright Act
    c) Dual Micro Copyright Act   d) Dual Millennium Copyright Act
100. The DMCA was updated in
    a) 1988   b) 1998   c) 2008   d) 1993

SECTION B

1. How to protect valuables?

2. What are the characteristics of computer intrusion?

3. What are the four kinds of threats?

4. Give a short note on MOM.

5. What are the security goals of a computing system?

6. Give a short note on Fence register.

7. What are the types of separation?

8. Write short notes about access control matrix.

9. Give a short note on Kerberos.

10. What are the guessing steps of a password?

11. What are the types flaws?

12. Give a short note on buffer overflows.

13. Give a short note on incomplete mediation.

14. What are the types of malicious code?

15. How a virus does surround a program?

16. Explain about the virus signatures?

17. What are the sources of a virus?

18. Explain the internet worm.

19. Give a short note code red virus.

20. Give a short note on web bugs.

21. What are the components of a database?.

22. What are the advantages using a database?

23. List out the requirements for database security.

24. Give a short note on integrity of a database.

25. Write a short note on SQL injection.

26. What are the three dimensions of a reliability and integrity?

27. Give short notes about two phases update.

28. Give a short note on range comparisons.

29. What are the three characteristics of database security?

30. Give a short note on commutative filters.

31. What are the characteristics of a network?

32. Explain about the shape and size of a network?

33. What are the Medias of a network?

34. Write a short note on protocols.

35. Give a short note on addressing.

36. Explain about layering concept in network.

37. Give a short note on TCP/IP.

38. Write a short on routing concepts.

39. Write short notes about LAN

40. Give a short note on WAN.

41. What are the applicability of patents of computer objects?

42. What are the requirements for registering a copyright?

43. Give a short note on copy rights for computer software.

44. Write short notes about copyright infringement.

45. Give a short note on patent infringement.

46. Differentiate the copy right, patent, trade secret protection.

47. How to protect firmware?

48. Write the example of ethical principles.

49. What are the steps to making and justifying an ethical choice?

50. Differentiate the law and ethics.

SECTION C

1. Discuss in detail about attacks of a computing system.

2. Write in detail about vulnerabilities.

3. Explain in detail about computer criminals.

4. Explain the security methods of an operating systems.

5. Discuss in detail about relocation.

6. Explain about the paging.

7. Explain in detail about the directory.

8. Explain about the access control list.

9. Explain about the various file protection mechanisms.

10. What are the criteria for password selection? Explain.

11. What are the kinds of malicious codes? Explain.

12. What is the home for the virus? Explain.

13. Write down the virus effects and its causes.

14. What are the several techniques for building a safe community for electronic contact?

15. What are the truth and misconception about viruses?

16. Explain the man in the middle attack.

17. Explain about the covert channels.

18. Describe about timing channels.

19. Explain in detail about the nature of software development.

20. Explain about the configuration management.

21. Describe the components of database.

22. Explain about the user authentication and audit ability of a data base

23. Describe the monitors.

24. Explain about the security issues of a database.

25. Explain about the separation in a database.

26. Explain about the integrity lock.

27. Explain about the trusted front end.

28. Explain about the window/view.

29. Describe the privacy and sensitivity of data mining.

30. Describe the data correctness and integrity.

31. Describe the ISO OSI reference model.

32. Explain about the types of networks.

33. What makes a network vulnerable? Explain.

34. What are the categories of attack? Explain.

35. Who attacks network? Explain.

36. Discuss in detail about the reconnaissance.

37. Explain the pinging.

38. Explain the eavesdropping and wiretapping.

39. Explain the masquerade.

40. What are the types of IDS? Explain.

41. Explain about the copyrights.

42. Explain about the copy rights for digital objects.

43. Describe the patents.

44. Explain about the trade secrets.

45. What are the legal issues relating to information? Explain.

46. Explain about the contract law.

47. Why a separate category for computer crime is needed? Explain.

48. Why computer crime is hard to define? Explain.

49. Why computer crime is hard to prosecute?

50. Explain about the examples of statutes.

KEY ANSWER

1. c) Vulnerabilities
2. a) 3
3. a) 4
4. d) Method Object Motive
5. a) 3
6. c) Integrity
7. a) Availability
8. d) 4
9. b) Fence
10. a) Pages
11. c) 2
12. b) Need to share
13. d) 3
14. c) Page frame
15. b) Segmentation
16. a) Boundary
17. b) Base
18. a) Files
19. a) Relocation
20. b) Ticket Granting Server
21.) Fixing faults
22. a) 6
23. a) Virus
24. d) Bug
25. a) Malicious code
26. c) Virus
27. a) Resident virus
28. d) Logic bomb
29. b) Worm
30. a) Trap door
31. c) Root kit
32. b) Information hiding
33. d) Modularization
34. c) 3
35. b) Polymorphic virus
36. a) 6
37. b) Testing
38. a) Terminate & Stay Resident Routines

14

39. a) 8
40. b) Time bomb
41. a)Database
42. b) Schema
43. a) Sub schema
44. a) Attribute
45. b) relation
46. a) Query
47. d) Shared access
48. a) consistency
49. b) Integrity
50. c) Controlled access
51. a) Element integrity
52. a) availability
53. c) 6
54. b) inference
55. a) database integrity
56. b) element integrity
57. c) element accuracy
58. a) Intent phase
59. c) monitor
60. d) State constraints
61. b) node
62. d) link
63. c) work station
64. a) topology
65. a) wire
66. b) 100 Mbps
67. c) 1000 Mbps
68. b) Application
69. a) Session
70. c) Network
71. d) Single control
72. d) small
73. d) Small
74. a) Masquerade
75. b) Session hijacking
76. a) Ping of death
77. b) Smurf
78. d) Echo – Chargen

79. a) Host – based
80. b) Signature based
81. a) Copy rights
82. c) Patents
83. d) Trade secrets
84. c) Statutes
85. c) three
86. a) Teleological
87. b) Egoism
88. c) Utilitarianism
89. d) Deontology
90. c) gratitude
91. b) fidelity
92. d) nonmaleficence
93. a) full disclosure
94. b) partial disclosure
95. a) Fraud
96. a) Marginal cost
97. a) 19 years
98. d) indefinite
99. b) Digital Millennium Copyright Act
100.   b) 1998

KONGUNADU ARTS AND SCIENCE COLLEGE

(AUTONOMOUS)

COIMBATORE-641029

QUESTION BANK

SUBJECT CODE: 15UIT306

TITLE OF THE PAPER: JAVA PROGRAMMING

DEPARTMENT OF INFORMATION TECHNOLOGY

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DEPARTMENT OF INFORMATION TECHNOLOGY

QUESTION BANK

JAVA PROGRAMMING 15UIT306

CONTENTS

Section-A

1. Java is a
   - a. Object Based Language
   - b. Object Language
   - c. Object oriented language
   - d. Procedure Language

2. Program are divided into what are known as
   - a. Object
   - b. Class
   - c. Interface
   - d. Inheritance

3. Basic runtime entity is.
   - a. Object
   - b. Class
   - c. Interface
   - d. Inheritance

4. The wrapping up of data and methods into a single unit is known as
   - a. Inheritance
   - b. Polymorphism
   - c. Encapsulation
   - d. Over Loading

5. One Class acquires the objects of the properties of another class is called
   - a. Inheritance
   - b. Polymorphism
   - c. Encapsulation
   - d. Over Loading

6. Java language is originally called as
   - a. Greek
   - b. Oak
   - c. BASIC
   - d. UNIX

7. Java was released in the year
   - a.1992
   - b.1991
   - c. 1993
   - d. 1998

8. J2SE with SDK 1.4 was released in the year
   - a. 2001
   - b. 2003
   - c. 2004
   - d. 2002

9. Smallest individual unit in a program are known as
   - a. Function
   - b. Method
   - c. Token
   - d. Thread

10. The compiler used to convert source code into byte code is
    - a. javap
    - b. javah
    - c. javac
    - d.java

11. In Java the name of the class to be defined is specified by
    - a. Interface
    - b. Identifier
    - c. Variable
    - d. Key word

12. Java Statement must end with
    - a. Colon
    - b. Slash
    - c. Semicolon
    - d. dot

13. The first statement allowed in a java file is a
    - a. Class
    - b. Package
    - c. Interface
    - d. Abstract

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14. Programmer-designed tokens is.

      a. Variables   b. Identifiers c. Both A and B   d. None

15. The statement that pass control to the beginning or end is

      a. Break   b. Continue   c. Goto   d. Jump

16. Java Compiler produce an Intermediate code called.

    a. Bit Code b. Byte Code c. Stream Code   d. Object Code

17. Byte code program is executed using the Interpreter

      a. javap   b. javah   c. javac   d.java

18. JVM Stands for

      a. Java Visual Machine   b. Java Virtual Machine

      c. Javac Virtual Machine d. Javap Virtual Machine

19. Java Application Program involves _____ steps

      a. 2   b.4   c.5   d. 3

20. In java the statement is used to include the header files is

      a. Import   b. Include   c. #include   d. Package

21. A Collection of methods and Variables is called

      a. Class   b. Object   c. Reference   d. Function

22. Object in java are created using the Operator.

      a. New   b. Ref   c. Final   d. Old

23. The Operator used to access the class variables and Methods.

      a. New   b. Ref   c. Dot   d. Old

24. To create methods that has the same name, but different parameters and different definitions is called

    a. Operator Overloading b. Method Overloading

   c. Polymorphism   d. Virtual Function

25. Class variables are also called as

      a. Instance variable   b. Global variable

      c. Static variable   d. Final variable

26. Class methods are also called as

      a. Instance method   b. Global method

      c. Static method   d. Final method

27. The keyword used to create a members associated with class rather than individual Objects is

        a. Instance   b. Global   c. Static   d. Final

28. A Method can be called by using only its name of another method of the same class is known as the method.

        a. Local   b. Nested   c. Instance   d. Ladder

29. To Inherits Members from one class to another class. This concept is called

        a. Polymorphism   b. Inheritance c. Overloading d. None

30. If there is one Super Class and one Sub Class. Then the inheritance is called as.

        a. Single   b. Multiple   c. Multilevel d. Hybrid

31. The Inheritance that java does not support is

        a. Single   b. Multiple   c. Multilevel   d. Hybrid

32. The methods of an abstract class must be define in its subclass is

        a. Virtual   b. Abstract   c. Void   d. Int

33. The Least restrictive modifier is

        a. Public   b. Private   c. Protected   d.Default

34. Most restrictive of all the access modifier is

        a. Public   b. Private   c. Protected   d.Default

35. Errors may broadly be classified into the categories.

        a. 2   b. 4   c. 3   d. 6

36. All Syntax errors will be detected and displayed by the java complier these errors are known as error called.

        a. Run-Time   b. Compile-Time   c. Both   d. None

37. "Dividing an Integer by Zero" .This Error comes under the category of Error.

        a. Run-Time   b. Compile-Time   c. Both   d. None

38. The condition that is caused by a run-time error in the program is

        a. Error   b. Exception c. Hit   d. Handle

39. The type of error found by Arithmetic Exception is.

        a. Math   b. Array   c. String   d. File

40. The Statement that can be used to handle an exception that is not caught by any of the previous catch statement is

        a. Final b. Finally   c. Try   d. Catch

41. What is similar to a Program that has a single flow of Control.

   a. Program b. Thread   c. Task   d. Instruction

42. Every Program has at least how many number of Threads.

   a. 2   b. 1   c. 3   d. 6

43. A Program that contains multiple flows of controls is known as

   a. Single Threaded   program   b. Multiple Threaded program

   c. Multi Threaded   program   d. None

44. Threads are implemented in the form of objects that contains a method called.

   a. start ()   b. stop ()   c. run()   d. destroy ()

45. The number of ways that new thread can be created is .

   a. 2   b. 4   c. 3   d. 6

46. At the time of creating a new thread we should extends a class called.

   a. Runnable   b. Thread   c. Applet   d. None

47. The number of states in Thread Life Cycle is.

   a. 2   b. 4   c. 5   d. 6

48. The Thread is Born and is said to be in the State called

   a. Runnable   b. Newborn   c. Blocked   d. Dead

49. The State that the thread is ready for execution and is waiting for the availability of the processor is.

   a. Runnable   b. Newborn c. Blocked   d. Dead

50. The processor has given its time to the thread for its execution.Then the thread is said to be in the state called.

   a. Running   b. Newborn   c. Blocked   d. Dead

51. A Thread to sleep for a specified time period using the method called.

   a. suspend()   b. notify()   c. sleep()   d. resume()

52. A thread is considered as "not runnable" but not dead is.

   a. Runnable   b. Newborn   c. Blocked   d. Dead

53. The interface that declares the run() method is.

   a. Runnable b. Newborn   c. Blocked   d. Dead

54. Peer class of String is

   a. StringClass b. StringBuffer   c. Vector   d. StringBuf

55. String method used to convert the Lower Case into Upper Case is

      a. toLowerCase()   b. toUpperCase()   c. Upper   d. Lower

56. Java Packages can be divided into Types.

      a. 2   b. 4   c. 3   d. 5

57. Java API Packages can be classified into the Types

      a. 2   b. 4   c. 3   d. 6

58. In Java default package is.

      a. io   b. awt   c. lang   d. net

59. The package used to create a graphical user interface is.

      a. io   b. awt   c. lang   d. net

60. In Java Package io stands for

      a. Input Output   b. Input Out c. In Out   d. In Output

61. In Applet Program the attribute used to specify the name of the applet is

     a. ALIGN b. CODEBASE   c. CODE   d. HSPACE

62. The tag used to align the Paragraph is

     a. <P></P>   b.<B</B> c.<T> </T> d.<I></I>

63. The Class in java that includes methods for drawing many different types of shapes is

     a. AWT   b. Graphics   c. Paint   d. Vector

64. Every applet has its own area of the screen known as

     a. Canvas   b. Frame   c. Layout   d. Grid

65. The drawLine method takes coordinates of pair.

     a. 2   b. 4   c. 5   d. 6

66. Number of arguments in the drawRect method is

     a. 2   b. 4   c. 5   d. 6

67. The method used to fill the arc is.

     a. fillArc()   b.drawArc()   c. Both d. None

68. The method used to retrieve the currently used font is.

     a. setColor()   b. SetFont()   c. getFont()   d. SetFont()

69. The method used to retrieve the information about the currently used font is.

     a. setColor() b. SetFont() c. getFont() d. getFontMetrics()

70. The Polygon method takes the Arguments.

        a. 2   b. 4   c. 3   d. 6

71. Set of lines connected together is considered as.

        a. Rectangle   b. Triangle   c. Circle   d. Polygon

72. A File is collection of related.

        a. Fieldb. Attributes   c. Data Base   d. Records

73. Storing and managing data using files is known as .

        a. File processing   b. Attribute processing

     c. Data Base processing d. Record processing

74. The Process of reading and writing objects is called as the Serialization.

        a. Class   b. Object   c. File   d. Record

75. The package that contains a large number of stream classes is.

        a. io   b. lang   c. awt   n. applet

76. The Stream classes that provides support for handling I/O operations on bytes.

        a. Character   b. Byte c. Input   d. Output

77. Number of byte Stream Classes that java provides is.

        a. 2   b. 4   c. 3   d. 6

78. Input stream classes that are used to read 8 bit bytes include a super class known as .

        a. Character stream   b. Bytestream

   c. Input stream   d. Outputstream

79. The method used to read a byte from the input stream is

        a. read()   b. skip(n)   c. reset()   d. available()

80. The method used to reads an array of bytes into b is

        a. read()   b. read(byte b[])   c. reset()   d. available()

81. AWT is

  a. Abstract Windowing Toolkit   b.Abstract Window Toolkit

  c.Application Windowing Toolkit   d. Application Window Toolkit

82. Number of components in border layout is .

  a. 4   b.5   c. 2   d. 3

83. The class that creates popup list is

  a. choice   b. list   c. combobox   d. listbox

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84. An abstract superclass for various AWT components is .

a. Component   b.Container   c.dialog   d .Canvas

85. Subclass of component that can hold other component is

a. Component   b.Container   c.dialog   d .Canvas

86. The layout in whichcomponent that are positioned from left to right and top to bottom is

a. flow layout   b. card layout   c.grid layout   d. border layout

87. The default layout is

a. flow layout   b. card layout   c.grid layout   d. border layout

88. Concrete subclass of container is

a. canvas   b. panel   c.dialog   d. frame

89. The standard window that has a titlebar and resize corners is

a. canvas   b. panel   c.dialog   d. frame

90. The user interface element that control the appearance of the display is

a.UI component   b.Container   c. Layoutmanager   d. component

91. The class that implements a scrollable list of text item is

a.list   b. choice   c.checkbox   d. checkboxgroup

92. The abstract subclass of the abstract class component is

a . Component   b.Container   c.dialog   d .Canvas

93. The subclass of the panel class is

a. Applet   b. canvas   c.dialog   d. frame

94. Subclass of a window is

a. Applet   b. canvas   c.dialog   d. frame

95. The user interface component that has two states is

a. choice   b. list   c. checkbox   d. CheckboxGroup

96. The class divides the screen into equal sized rows and columns producing a spreadsheet arrangement is

a. flow layout   b. card layout   c.grid layout   d. border layout

97. The layout manager that does not attempt to resize the components is

a. flow layout   b. card layout   c.grid layout   d. border layout

98. The object that generates an event is

a.Event   b.EventSource   c.EventListener   d.Event Adapter

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99. The object that is notified when an event occurs is

    a.Event   b.EventSource   c.EventListener   d.Event Adapter

100. The class creates a top level window without title,menu or border is

    a. Window   b. applet   c.dialog   d. frame

Section-B

1. Explain Java History
2. List out Java Features
3. Explain Java Architecture.
4. What is JDK?
5. What are the types of Java Program? Explain
6. How to declare a Variable in Java?
7. What are Java Tokens?
8. What is a Multidimensional Array?
9. What are the Selection Constructs in Java?
10. Write a note on Jump Statements in Java.
11. What is Constructor Overlaoding?Explain
12. Write a note on the this Reference.
13. What is Recursion?Explain.
14. What are the Access Modifiers in Java?
15. Write a note on Command Line Arguments.
16. Write a note on The super Reference.
17. What is Method Overriding?Explain..
18. Write a note on the Final Keyword in Java.
19. How to define an Interface in Java?Give example.
20. What are the Types of Exceptions.
21. Discuss about the Concept of Threads.
22. Write a note on the Runnable Interface.
23. How to create Threads using Runnable Interface?Explain.
24. Write notes on Thread Priorities.

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25. What is Inter-Thread Communication?

26. What is a Package?

27. Write notes on The import Statement.

28. Write a note on String Class.

29. How to Concatenate a String?Give Example

30. Write a note on regionMatches() method.

31. Write a note on the File Class.

32. What are InputStream and OutputStream Classes?

33. How to list Directories in java?Give Example.

34. Explain Reader and Writer Classes.

35. Write notes on FilenameFilter Interface.

36. Write notes on FileReader and FileWriter classes.

37. Explain Random Access File.

38. List out the Methods in File Class.

39. How to Run an Applet?Explain.

40. Write notes on the Color Class?

41. List out the classes in AWT.

42. Explain TextField component with an example.

43. Write a note on Label Control with example.

44. Write note on the List class with an example.

45. Write notes on the Container Class.

46. Explain Dialog class with an example.

47. Explain FlowLayout with an example.

48. Explain CardLayout with an example.

49. What is Event Delegation Model.

50. What are the methods in WindowListener?

Section –C

1. Explain OOPs Concepts

2. What are the different data types in Java?Explain.

3. What is a Class?How to define a Class in Java?

4. What is an Array?What are the different types of Array?

5. Explain Operators in Java.

6. Explain Selection Constructs with an example.

7. What are Jump statements in Java?

8. What are Instance Variables and Class Variables?

9. What is a Method ?How to declare a method in Java?

10. Explain Constructors with an example.

11. Explain Method Overloading with an example.

12. Explain Method Overridding with example.

13. What is Inheritance?What are its types.

14. What are Abstract Classes and Methods? Give example.

15. How to Implement an Interface?Explain with example.

16. What are the Fundamentals of Exception Handling?

17. How to Handle Exceptions?Explain.

18. Explain throw and throws clause with an example.

19. Explain Exception Class

20. What are User Defined Exception?Explain.

21. Explain the concepts of Thread.

22. Explain Thread's Life Cycle.

23. Discuss about the Thread Creation using Thread Class.

24. Explain Synchronization and Deadlock.

25. What is a Package?How to create a Package?Explain.

26. Explain Java API Packages

27. How to create Strings in Java?Explain.

28. Explain String Constructors.

29. Discuss about Operations on Strings.

30. What are the String Comparison methods in Java?Explain

31. Explain FileInputstream and FileOutput Stream with an example.

32. Explain RandomAccessFile Class.

33. List out the methods of InputStream and OutputStream.

34. Explain FilterInputStream and FilterOutputStream with example.

35. Explain StreamTokenizer class with example.

36. Write notes on the basics of Applet class.

37. Explain the Life cycle of Applet?

38. What are the Methods of the Applet Class?Explain.

39. Explain Font class in Java with example.

40. Explain FontMetrics Class.

41. How to create Labels and Buttons in Java? Give example.

42. Explain Checkbox and CheckboxGroup components with an example.

43. What are the Various Container classes in Java?Explain

44. Explain Menus with an example.

45. Explain GridLayout in Java with an example.

46. Explain FlowLayout with an example.

47. Explain BorderLayout with an example.

48. What are Event Classes?Explain.

49. Explain ActionListener with an example.

50. Explain MouseListener and MouseMotionListener with an example.

AnswerKey (Section A)

1. c.Object Oriented Programming

2. a.Object

3. a.Object

4. c.Encapsulation

5. a.Inheritance

6. b.Oak

7. a.1991

8. d.2002

9. c.Token

10. c.javac

11. b.Identifier

12. c.Semi colon

13. b.Package

14. c.Both A and B

15. c.Goto

16. b.Bytecode

17. d.java

18. c.Java Virtual Machine

19. a.2

20. a.Import

21. a.Class

22. a.New

23. a.Dot

24. b.Method Overloading

25. a.Instance

26. a.Instance

27. c.Static

28. b.Nested

29. b.Inheritance

30. a.Single

31. b.Multiple

32. b.Abstract

33. a.Public

34. b.Private

35. a.2

36. b.Compile-Time

37. a.Run-Time

38. b.Exception

39. a.Math

40. b.Finally

41. b.Thread

42. b.1

43. c.Multi Threaded program

44. c.run()

45. a.2

46. b.Thread

47. c.5

48. b.Newborn

49. a.Runnable

50. a.Running

51. c.Sleep()

52. c.Blocked

53. a.Runnable

54. b.StringBuffer

55. b.toUpperCase()

56. a.2

57. d.6

58. c.lang

59. b.awt

60. a.Input Output

61. c.CODE

62. a.<P></P>

63. b.Graphics

64. a.Canvas

65. a.2

66. b.4

67. a.fillArc()

68. c.getFont()

69. d.getFontMetrics()

70. c.3

71. d.Polygon

72. d.Records

73. a.File

74. c.File

75. a.io

76. b.Byte

77. a.2

78. c.InputStream

79. a.read()

80. b.read(byte b[])

81. a.Abstract /windowing toolkit

82. b.5

83. a.Choice

84. a.Component

85. b.container

86. a.flowlayout

87. a.flowlayout

88. b.panel

89. d.frame

90. c.layoutmanager

91. a.list

92. b.container

93. a.applet

94. d.frame

95. c.checkbox

96. c.gridlayout

97. b.cardlayout

98. b.Eventsource

99. c.Eventlistener

100. a.Window

KONGUNADU ARTS AND SCIENCE COLLEGE
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<u>**QUESTION BANK**</u>

Subject code   :   **15UIT4A4**
Title of the paper   :   **MICROPROCESSOR,**
                                PC- HARDWARE AND INTERFACING

DEPARTMENT OF INFORMATION TECHNOLOGY

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SECTION-A

Choose the correct answer

1. Printer is usually connected to

    (a) LPT1 connector, (b) COM1 connector, (c) COM2 connector, (d) USB connector

2. MODEM is usually connected to

    (a) LPT connector, (b) COM1 or COM2 connector, (c) USB connector, (d) PS/2 Port

3. Mouse serves as

    (a) Input device, (b) output device, (c) both input and output devices (d) None

4. Which one of the following secondary storage devices stores huge amount of data/ program

    (a) hard-disk, (b) floppy disk, (c) CD-ROM disk (d) Magnetic disk

5. Which of the following ports allows dynamic attachment and detachment of peripherals to the PC?

    (a) Parallel port (b) serial port (c) USB port (d) Enhanced port

6. Scanners serve as

    (a) Input devices (b) output devices (c) both input and output devices (d) None

7. Which one of the following memory devices loses its contents when power to the device fails?

    (a) ROM (b) RAM (c) flash memory (d) PROM

8 Which of the following operations is performed by microprocessor to get data from input device?

    (a) I/O read, (b) I/O write, (c) memory read, (d) memory write

9 Which of the following operations is performed by microprocessor to write data into memory device?

    (a) I/O read, (b) I/O write, (c) memory read, (d) memory write

10. Address lines of the microprocessor are

    (a) Input lines, (b) output lines, (c) bidirectional lines

11. Data bus lines of the microprocessor are

    (a) Input lines, (b) output lines, (c) bidirectional lines

12. 8086 microprocessor is a

(a) 8-bit processor, (b) 16-bit processor, (c) 32-bit processor

13. The size of 8086 queue is

(a) 4 bytes, (b) 6 bytes, (c) 8 bytes, (d) 16 bytes

14. The most important advantage of segmentation scheme of 8086 is

(a) It can access more memory, (b) it can address more I/O, (c) its programmers are relocatable

15 The number of flags present in the flag register of 8086 microprocessor is

(a) 3, (b) 5, (c) 6, (d) 9

16 The number of memory locations that can be addressed by an 8086 microprocessor is

(a) 64KB (b) 1 MB (c) 16MB (d) 16GB

17 The size of a segment in 8086 is

(a) 64KB, (b) 1 MB, (c) 16MB, (d) 16GB

18 Which one of the following arithmetic/logic operations is performed by the destination, source' instruction for the testing?

(a) Addition, (b) subtraction, (c) AND (d) OR

19. The source for the Rotate or Shift instructions should be in

(a) AL registers, (b) AX register, (c) any internal register, (d) any register or a re location

20. Which one of the following segments is used by the 'CMPSB' string instruction destination?

(a) Code segment, (b) data segment, (c) extra segment, (d) stack segment

21. The parameter provided with a 'short' type JMP instruction is a

(a) Byte (b) word (c) double word (d) Status

22. The size of parameter provided with a 'far' type JMP instruction is a

(a) Byte (b) word (c) double word (d) Status word

23. The last instruction in a subroutine program should be

(a) JMP, (b) RET, (c) IRET, (d) any instruction

24. The last instruction in an interrupt service routine should be

(a) JMP, (b) RET, (c) IRET, (d) any instruction

26. LOOP' instruction basically

    (a) Decrements CL, (b) decrements CX, (c) tests the value in CX, (d) decrements and tests value in CX

27. The Memory space allocated for a variable by 'DB' definitions

    (a) one byte, (b) two bytes, (c) four bytes

28. The memory space allocated for a variable by 'DW definition is

    (a) one byte, (b) two bytes, (c) four bytes

29. The memory space allocated for a variable by defining the variable as type 'DD' is

    (a) one byte, (b) two bytes, (c) four bytes

30. The width of address bus of 8086 microprocessor is

    (a) 8 bit, (b) 16-bit, (c) 19-bit, (d) 20-bit

31. The Width of the data bus in 8086 microprocessor based systems is

    (a) 8 bit, (b) 16-bit, (c) 19-bit, (d) 20-bit

32. The number of pins in 8086 microprocessor is

    (a) 24 (b) 28, (c) 40, (d) 64

33. Which one of the following signals is used for interfacing slow memory or I/O devices microprocessor?

    (a) CLK (b) RESET, (c) READY

34. Compared with SRAM, the DRAM devices

    (a) are slow, (b) have low packing density, (c) are expensive, (d) do not require refresh

35. Flash memory is

    (a) PROM, (b) EPROM, (c) EEPROM

36. When microprocessor reads 8-bit data from even addressed memory location, the active data bus lines are

    (a) D7-D0, (b) D15-D8, (c) D15-D8 simultaneously,

    (d) D15-D8 in the first cycle, D7-D0 in the next cycle

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37. When microprocessor reads 16-bit data from odd addressed memory location, the active data bus lines are

(a) D7-D0, (b) D15-D8, (c) D15-D8 simultaneously, (d) D15-D8 in the first. D7-D0 in the next cycle

38. Which one of the following interrupts occurs if Trap flag is set? (a) divide-by-zero, (b) single step, (c) non-maskable interrupt, (d) breakpoint

39. When an interrupt signal is applied to NMI input pin of 8086 microprocessor, which of the following interrupt-types occurs?

(a) Type-0, (b) Type-1, (c) Type-2, (d) Type-3

40. Memory locations holding the address of interrupt service routine of the Type-08H

(a) 00000H-00003H, (b) 00008H-0000BH, (c) 00010H-00013H,

(d) 00020H-000231H

41. An additional operation performed by the IRET instruction than RET instruction is

(a) It clears TF and, IF flags, (b) it restores CS and IP registers, (c) it restores flags (d) None of the above

42. Which of hardware interrupt can be disabled through instructions?

(a) NMI, (b) INTR

43. How many hardware interrupt requests can be processed by a single interrupt controller IC 8259A,

(a) 8 (b) 15, (c) 16, (d) 64

44. Among the following interrupts which one takes top priority?

(a) divide-by-zero, (b) NMI, (c) INTR, (d) single-step

45. Among the following interrupts which one takes least priority?

(a) divide-by-zero, (b) NMI, (c) INTR, (d) single-step

46. DMA request is usually initiated by

(a) Peripheral, (b) microprocessor, (c) memory, (d) none of the above

47. DMA write involves

(a) Memory read and I/O write, (b) I/O read and memory write

48. The method of data transfer between the microprocessor and the peripherals by Synchronizing the timing of data transfer by exchange of signals is known as

    (a) DMA controlled I/O (b) interrupt driven I/O (c) polling (program I/O)

    (d) Handshaking I/O

49. In handshake I/O input operation, the names of the handshake signals are

    (a) STB and IBF, (b) ACK and OBF

50. DMA transfer is controlled completely by

    (a) software, (b) hardware

51. In which one of the following modes of 8255 the input port is not latched?

    (a) mode-0, (b) mode-1, (c) mode-2

52. Which bit of Port-C is tested to determine if a data output by the microprocessor into Port-B (configured to mode-1, output operation) is transferred to the peripheral or not?

    (a) PC7, (b) PC6, (c) PC2, (d) PCI

53. Which one of the following ports of 8255 supports bidirectional data transfer function?

    (a) Port-A, (b) Port-B, (c) Port-C

54. Which one of the following registers of the interrupt controller 8259A registers interrupt requests?

    (a) ISR, (b) IRR, (c) IMR

55. How many address input pins are available in 8259A?

    (a) 1, (b) 2, (c) 3

56. Processing of how many interrupt requests is possible by cascading multiple interrupt controllers?

    (a) 8, (b) 15, (c) 16, (d) 64

57. Which command word allows masking of interrupt requests?

    (a) ICW-1, (b) ICW-2, (c) ICW-3, (d) OCW-1

58. Which command word issues EOI COMMAND?

    (a) ICW-2, (b) ICW-4, (c) OCW-1, (d) OCW-2

59. The EOI command

   (a) Masks the interrupt requests, (b) registers the interrupt requests, (c) resets the
   active interrupts

60. The A3-A0 address lines of 8237 DMA controller are

   (a) Inputs, (b) outputs, (c) bidirectional

61 What is the maximum size of a block that can be transferred in a single DMA
   transfer

   with 8237?

   (a) 256 bytes, (b) 1 KB, (c) 64 KB, (d) 1 MB

62 How many I/O addresses are required in I/O map for interfacing a 8254
   Timer/Counter

   IC to 8086?

   (a) 2, (b) 4, (c) 8, (d) 16

63 Which one of the following modes of operation of the Timer/Counter IC 8254
   generates

   interrupt signals at regular interval of time?

   (a) mode-0, (b) mode-1, (c) mode-2, (d) mode-3

Unit III

64. Which one of the following microprocessors multiplexes address and data bus
   signals? (a) 8080, (b) 80286, (c) 80386, (d) 80486

65. Memory above 1 MB space is referred to as

   (a) conventional memory, (b) extended memory, (c) expanded memory,

   (d) virtual memory

66. The 80386SX and 80386DX microprocessors have same

   (a) internal architecture, (b) width of address bus, (c) width of data bus

67. How many byte-enable pins are in 80386DX microprocessor?

   (a) 2, (b) 4, (c) 8

68. How many I/O addresses can the 80386 microprocessor access?

   (a) 256, (b) 1 K, (c) 64 K, (d) 1 M

69. Physical and virtual memory spaces that can be addressed by 80386DX
    microprocessor are,

9

(a) 16 MB, 1 GB, (b) 4 GB, 64 TB

70. The size of a page in 80386 microprocessor is

    (a) 16 bytes, (b) 4KB, (c) 1 MB

71. Which of the following addressing modes are newly introduced in 80386 microprocessor?

    (a) based, (b) indexed, (c) based indexed, (d) scaled

72. Which one of the following microprocessors supports LI cache?

    (a) 8086, (b) 80286, (c) 80386, (d) 80486

73. Which one of the following microprocessors has built in math co-processor?

    (a) 8086, (b) 80286, (c) 80386, (d) 80486

74. The width of data bus of Pentium processors is

    (a) 16, bit, (b) 32-bit, (c) 64-bit, (d) 128-bit

75. How many data segment registers are there in 80386 microprocessor?

    (a) 2, (b) 3, (c) 4

76. The purpose of IOPL flag in 80386 microprocessor is
    (a) controls I/O access, (b) controls task switching, (c) controls mode switching

77. Where does the interrupt vector table get loaded in 80386 system?

    (a) first 1 K space, (b) any where in memory,

    (b) (c) last 1 K space

78. The Task Register in 80386 microprocessor is used
    (a) as another general purpose register, (b) to hold the descriptor of currently executing task,

    (c) a control register

79. The various descriptor table registers in 80386 microprocessor are
    (a) accessible to programmers, (b) not accessible to programmers

80. Memory and I/O for 80386 systems are set up on how many banks?

    (a) 2, (b) 4, (c) 8

81. The maximum size of L2 cache memory supported by 80386 is

(a) 8 KB,   (b) 32 KB, (c) 64 KB, (d) 256 KB

82. The operating frequency of 80486DX2 microprocessor is

(a)33 MHz, (b) 50 MHz, (c) 66 MHz, (d) 100 MHz

83. Which one of the following is the new feature in 80486 microprocessor?

(a)L2 cache, (b) 32-bit internal register, (c) 32-bit address bus,

(d) reduced instruction execution time

84. Which one of the following is the new feature in Pentium microprocessor?

(a) LI cache, (b) 32-bit address bus, (c) dual data pipelines

85. How many byte enable signals are in Pentium microprocessor?

(a) 2, (b) 4, (c) 8

86. Memory and I/O for Pentium systems are set up on how many banks?

(a) 8, (b) 4, (c) 2

87. Which one of the following microprocessors is developed exclusively for multimedia applications?

(a) Pentium, (b) Pentium-MMX, (c) Pentium-Pro

88.How many pipelines are there in Pentium-II processor?

(a) 2, (b) 3, (c) 4

89. Which one of the following functions is integrated into system controller (North Bridge) chip?

(a) DRAM controller, (b) interrupt controller, (c) IDE controller, (d) USB controller

90. Where do the programs and data with which the microprocessor is currently working reside?

(a) floppy disk, (b) hard disk, (c) CD-ROM, (d) main memory

91. The size of conventional memory is

(a) 640 KB, (b) 384 KB, (c) 128 KB, (d) 64 KB

92. High memory area can be used for

(a) application program, (b) operating system, (c) data,

(d) device drivers/TSR programs

93. Cache memory uses

(a) SRAM, (b) DRAM, (c) flash memory, (d) CMOS RAM

94. Which area of memory is occupied by ROM BIOS?

(a) conventional memory, (b) UMA, (c) expanded memory, (d) high memory

95. Which of the following memory techniques is used to improve memory access?

(a) pipelining, (b) paged memory, (c) interleaved memory, (d) cache memory

96. Shadow memory technique is used to improve memory access with

(a) SRAM, (b) DRAM, (c) ROM devices

97. The CMOS RAM holds,

(a) system configuration, (b) device driver, (c) BIOS, (d) POST

98. When power to a PC is switched ON, the first program to be executed by the system is

(a) BOOT Strap Loader, (b) POST, (c) CMOS Setup, (d) BIOS

Unit IV

99. Which one of the following storage devices in a PC does not use magnetic principle for storage?

(a) floppy disk, (b) hard disk, (c) CD-ROM

100. The smallest readable/writable unit on a magnetic storage disk is

(a) sector, (b) track, (c) cylinder

101. To write logic high on a magnetic medium,

(a) current is passed through the read/write head, (b) current through the read/write head is stopped, (c) the direction of current flow is reversed, (d) the direction of current flow is retained

102 To write logic low on a magnetic medium,

(a) current is passed through the read/write head, (b) current through the read/write head is stopped, (c) the direction of current flow is reversed, (d) the direction of current flow is retained

103. When data are read from magnetic medium, voltage induced on the read/write head irrespective of its polarity is treated as,

(a) logic low, (b) logic high

104. Which one of following data encoding formats is more efficient?

    (a) FM, (b) MFM, (c) RLL 2, 7

105. Which one of the following data encoding formats is referred to as double density?

    (a) FM, (b) MFM, (c) RLL 2, 7

106. During the data read or write operation, the floppy disk is spun at the speed of,

    (a) 300 rpm, (b) 5,400 rpm, (c) 10,000 rpm

107. How many tracks are there on either side of a micro floppy disk?

    (a) 18, (b) 40, (c) 80, (d) 160

108. How many bytes are written into each sector of a micro floppy disk?

    (a) 64 bytes, (b) 128 bytes, (c) 256 bytes, (d) 512 bytes

109. The access time of floppy disk drive is,

    (a) the time to rotate the disk one full revolution, (b) time to move the head from one sector to another sector, (c) the time to reach the required sector

110. During the command phase or operation of the FDC 8272A, which one of the following actions takes place?

    (a) sends commands and parameters to data register, (b) executes commands, (c) saves the status information

111. How many different commands are there for 8272A?

    (a) 9, (b) 15, (c) 32

112. The size of the 'Read Data' command of 8272A is

    a)1, (b) 2, (c) 9, (d) 15 bytes

113. Which of the following actions takes place for the 'Write Data' command to 8272A?

    (a) writes deleted data address mark in sector, (b) writes into all sectors of a track
    (c) writes ID fields, (d) writes specified amount of data

114. How many status registers are there in FDC 8272A?

    (a) 1, (b) 2, (c) 4, (d) 8

115. Which one of the following IRQ lines in a PC-AT system is used by FDC?

    (a) IRQ3, (b) IRQ4, (c) IRQ6, (d) IRQ7

13

116. The function of a data separator in a hard disk drive is

(a) digitizes the analog signal, (b) converts serial data to parallel data, (c) positions the read/write head, (d) controls read/write operation

117. Which one of the following HDD interfaces offers high performance?

(a) ST-506, (b) ESDI, (c) IDE

118. Data are recorded on a CD in

(a) concentric tracks, (b) a single, continuous, spiral track

119. The data encoding format used in CD-ROMs is

(a) FM, (b) MFM, (c) RLL 2, 7, (d) EFM

120. How many bytes are stored in a data block of a CD-ROM?

(a) 24 bytes, (b) 2,048 bytes, (c) 153.6 KB, (d) 533 MB

121. CD divide information in terms of

a) minutes and seconds, (b) data blocks, (c) sector and tracks

122. The video display device in lap-top computers use

(a) CRT, (b) LED, (c) LCD

123. Which one of the following signals controls the intensity of the beam and produces an image on the CRT screen?

(a) video signal, (b) vertical sweep signal, (c) horizontal sweep signal

124. How many input signals are there in monitors using 'Composite Video'?

(a) 1, (b) 2, (c) 3

125. Dot patterns for each line of each character to be displayed on the monitor screen are stored in the,

(a) screen memory, (b) character generator ROM

126. ASCII codes of characters to be displayed on the complete monitor screen are stored in the

(a) Screen Memory (b) Character generator ROM

127. Which one of the following signals is used to bring the beam to the start of a new line?

(a) VIDEO (b) VSYNC (C) HSYNC

128. Which one of the following signals is used to bring the beam to the start of a new Frame ?

(a) VIDEO (b) VSYNC (C) HSYNC

129. The size of the screen memory that stores characters for displaying in 80 Columns and 25 row format would be

    (a) 2KB   (b) 4KB (c) 8 KB (d) 16KB

130. Which one of the following in a CRT interface generates HSYNC and VSYNC signals?

    (a) dot clock   (b) shift register (c) character generator (d) CRT Controller

131. The resolution of VGA monitor is

    (a) 320 X 200 pixels   (b) 640 X 480 pixels   (c) 800 X 600 pixels

    (d)1024 X 768 pixels

132. In the graphics display the dot patterns of images are provided by

    (a) screen memory   (d) ROM

133. The Size of the screen memory, which stores monochrome graphics image is 320 X 200 resolution would be

    (a) 2KB   (b) 4KB   (c) 8KB   (d) 16KB

134. Which one of the following are primary colours ?

    (a) red ,green, blue   (b) magenta, yellow, orange   (c) black and white

135. How many bits are used to represent the colour of a pixel of screen providing 256 colours?

    (a) 4   (b) 8   (c) 16 (d) 24

136. Which one of the following display systems requires light for displaying images ?

    (a) LED (b) LCD (c) CRT

137. Which of the following devices can switch their resolution ?

    (a) LCD (b) CRT

138. Which of the following types of LCD displays offers fast switching of elements and good contrast?

    (a) active-matrix LCD   (b) passive –matrix LCD

139. Which one of the following types of switches on keyboards has the problem of key bouncing?

(a) capacitive switch   (b) mechanical switch   (c) hall effect switch

140. Power for operation of keyboard components is supplied by
(a) a battery within the keyboard   (b) external supply

(c) motherboard through the data cable

141. The number of pins in the PS/2 type keyboard connector is

(a) 4   (b) 5   (c) 6

142. The PC/AT keyboards support which type of data transfer protocol

(a) unidirectional , parallel   (b) Unidirectional , serial

(c) bidirectional , parallel   (d) bidirectional ,serial

143. Make code is the key code that is transferred from the keyboard to the system when the key is

(a) pressed   (b) released

144. When a key is released, the code that is transferred from the keyboard to the system is referred to as

(a) make code   (b) break code

145. Which one of the following interfaces is not used for connecting the mouse to the system?
(a) parallel, (b) serial, (c) PS/2, (d) USB

146. The communication on serial interface line between the mouse and the system is
(a) unidirectional, (b) bidirectional

147. The power required for the operation of internal components of mouse is provided
(a) from external source, (b) by battery within the mouse, (c) from the system through an unused interface line

148. Serial mouse communicates the mouse actions to the system by a packet of
(a) 2 bytes, (b) 3 bytes, (c) 5 bytes

149. Mouse Events are Handled by calling the interrupt function
(a) INT 0BH   (b) INT 0CH   (c) INT 33H

150. Which of the following types of printers generates high quality printouts?

(a) dot-matrix printer, (b) ink-jet printer, (c) laser-jet printer

151. Control codes to printers controlling the printing styles start with the ASCII code for the character

(a) 'ESC, (b) '#', (c) '*

152 The status of the printer is obtained by calling the BIOS interrupt function with the function no.,

(a) 00H, (b) 01H, (c) 02H

153. PostScript language is

(a) device dependent, (b) device independent

Unit V

154. Parallel port at the rear side of the CPU is identified by

(a) 25-pin, D-type female connector, (b) 25-pin, D-type male connector,

(c) 9- D-type male connector, (d) 4-pin connector

155. Maximum number of parallel ports possible in a PC is

(a) 1, (b) 2, (c) 3, (d) 4

156. How many registers are there in a SPP?

(a) 3, (b) 6, (c) 8, (d) 16

157. The SPP occupies which of the following I/O address on the I/O map of a PC?

(a) 02F8H-02FAH, (b) 0378H-037AH, (c) 03F8H-03FAH, (d) 0278H-027AH

158. Which bit of the control register of SPP is used to enable or disable the interrupt requests?

(a) bit-4, (b) bit-5, (c) bit-6, (d) bit-7

159. Which bit of the control register is used to control bidirectional operation of SPP?

(a) bit-4, (b) bit-5, (c) bit-6, (d) bit-7

160. Which of the following bits of control register of SPP is directly presented (without inverting) at an output pin of the connector?

(a) bit-3, (b) bit-2, (c) bit-1, (d) bit-0

161. Which one of the following bits of status register of SPP gives the inverted level of   the   signal?

(a) bit-7, (b) bit-6, (c) bit-5, (d) bit-4, (e) bit-3

162. How many bits of the control register of SPP are used to output control signals to printers?

(a) 3, (b) 4, (c) 5, (d) 8

163 How many bits of the status register of SPP are used to input the status signals from printers?

    (a) 3, (b) 4, (c) 5, (d) 8

164 Which one of the following signals of SPP indicates that the printer is ready to accept next data?

    (a) ACK, (b) BUSY, (c) STROBE , (d) SLCT

165. Which one of the following signals of SPP generates interrupts, if enabled?

    (a) ACK, (b) BUSY, (c) STROBE, (d) SLCT

166. How many wires are there in a USB cable?

    (a) 4, (b) 9, (c) 25, (d) 32

167. The maximum data transfer rate possible with USB is

    (a) 1.2 Mb/s, (b) 12 Mb/s, (c) 480 Mb/s

168. Maximum of how many peripherals can be connected through USB?

    (a) 2, (b) 4, (c) 64, (d) 127

169. An endpoint refers to

    (a) hub, (b) buffer, (c) terminator, (d) peripheral

170. Which one of the following is a USB controller?

    (a) 8042, (b) 8051, (c) 16550, (d) 8x931

171 How many IN and OUT end points be there in a USB device?

    (a) 1 IN and 1 OUT, (b) 8 IN and 8 OUT, (c) 16 IN and 16 OUT

172. The ID endpoint-0 is assigned to

    (a) control end point, (b) data in end point, (c)   data out end point

173. Which one of the following end points supports bi-directional flow?

    (a) control end point, (b) data end point

174. Scanner is classified under which of the following types of USB devices?

    (a) HID, (b) printer devices, (c) imaging devices, (d) mass storage devices

175. A modern PC provides how many USB ports?

    (a) 1, (b) 2, (c) 4

176. Which one of the following types of transactions is used to send control-transfer requests to a USB device?

    (a) SETUP transaction, (b) IN transaction, (c) OUT transaction

177. Which one of the following types of packets describes the type and direction of transaction, the address of USB device, and the end point number?

    (a) token packet, (b) data packet, (c) handshake packet

178. Which one of the following transfer types has the top priority, automatic error detection and high data rate?

    (a) isochronous data transfer, (b) interrupt data transfer, (c) bulk data transfer, (d) control data transfer

179. The port addresses on the I/O map of the system occupied by USB are

    (a) 03F8H-03FFH, (b) FF80H-FF9FH, (c) FFA0H-FFA7H, (d) FFA8H-FFAFH

180. What is size of onboard RAM in microcontroller CPU core of USB controller 8x931?

    (a) 256 bytes, (b) 8 KB, (c) 64 KB

Section B

Unit I
1. Explain the General organization of a microcomputer
2. Write notes on Flag register of 8086 Microprocessor
3. What are Data Transfer Instructions explain
4. List out all arithmetic Instruction with correct syntax
5. Discuss in detail about Branch control instruction
6. Explain about Bit Manipulation Instructions with examples
7. Write notes on String Instructions
8. Discuss in detail about iteration control instructions
9. Write short notes on Interrupt instructions
10. Discuss about processor control Instructions
11. Explain in detail about Minimum mode signals
12. Write short notes on maximum mode signals
13. Write notes on Bus Cycle
14. Explain about a) SRAM b) DRAM
15. Explain about Memory Banks of 8086 Processor

Unit II
16. Explain about the pins and signals of 8255A Programmable Peripheral Interface
17. Write notes on Handshake Mode operations of 8255A
18. Explain about Mode 1 operations of 8255A
19. Write notes on Bidirectional Data Transfer Mode Operation of 8255A
20. Explain about the operations of Priority Interrupt Controller 8259A
21. Write notes on Interrupt Command Words (ICW) of 8259A
22. Explain about Operation Command Words (OCW) of 8259A

23. Discuss about the Command Register and Request Register of 8237 DMA Controller
24. Discuss about Mode register and Single Mask register of 8237 DMA Controller
25. Explain about the pins and signals of 8254

Unit III

26. Discuss about the Internal Blocks and Signals of 80386 Microprocessor
27. Write short notes on Internal Registers of 80386 Microprocessor
28. Explain about the modes of 80386 microprocessor
29. Explain about the Instructions of 80386 Microprocessor
30. Discuss about the Memory and I/O operations of 80386 microprocessor
31. Discuss about the Internal Blocks and signals of 80386 Microprocessor
32. Discuss about the features of the Pentium Processor
33. Explain about the Internal Blocks and signals of Pentium Processor
34. Discuss about the Registers and Instructions of Pentium Processor
35. Discuss about the Internal Structure Pentium –Pro Processor
36. Explain in detail about the features of Pentium II Microprocessor
37. List the improvements of Pentium –Pro over Pentium processor
38. Describe the improvements of Pentium II over Pentium-Pro Microprocessor
39. List out the new flags of Pentium processor
40. Explain about burst mode in detail

Unit IV

41. Write notes on data encoding formats
42. Write notes on the Registers of 8272A FDC
43. Discuss in detail about FDC Interface
44. Write notes on Drive Construction of Hard Disk Drive
45. Write notes on Data Storage Format and Drive Construction of CD-ROM Drive
46. Write notes on BIOS Disk Services
47. Discuss about CRT Fundamentals
48. Write notes on CRT Interface
49. Write notes on Video Adapter
50. List out the Advantages and Disadvantages of LCD Monitor
51. Explain in detail about LCD operation and its types
52. Write notes on keyboard Types
53. Explain about Keyboard Interface
54. Explain in detail about Mouse Interface Types
55. Write notes on Mouse Commands
56. Compare the performance of three types of Printers
57. Describe about Printer Interface

Unit V

58. Discuss about the pins and signals of Standard Parallel Port
59. Write notes on IEEE1284 Standard
60. What is a Serial Port? Discuss about the pins and signals of Serial port
61. List out the features of USB
62. Write short notes of USB System
63. What is a USB Host ? Rxplain
64. Describe about a USB Device
65. What is a USB Hub ? Explain
66. List out the Transfer Types in a USB Transaction
67. What do you mean by Pipe and Packet ? Explain

Section C

Unit I

1. Explain about the general organization of a microcomputer
2. Explain about the internal architecture of 8086
3. Explain in detail about Immediate addressing mode
4. Discuss in detail about Register addressing mode
5. Explain about memory addressing mode
6. Discuss in detail about arithmetic and data transfer instructions
7. Explain about Bit manipulation and Interrupt instructions
8. Discuss in detail about pins and signals of 8086
9. Write notes on memory interfacing and memory Banks
10. Discuss about Interrupts in detail
11. Discuss about SRAM Interfacing
12. Write notes on DRAM Interfacing
13. Discuss about steps in 8086 Response to Interrupts
14. Write short notes on Interrupt Types
15. Explain about basic DMA Operations

Unit II

16. Discuss in detail about programmable peripheral Interface 8255A
17. Explain the internal block diagram of 8259A
18. Explain about the DMA controller in detail
19. Explain in detail about Programmable Peripheral Interface 8254
20. Explain in detail about UART
21. Explain about the modes of operation of 8254 Programmable interval Timer
22. Discuss about the pins and signals of UART
23. Write notes on the internal Registers of UART
24. Explain about FIFO and Line Control registers of UART
25. Differentiate NMI and INTR

Unit III

26. Explain about 80386 Microprocessor
27. Discuss in detail about 80486 Microprocessor
28. Explain about Pentium processors in detail
29. Explain Pentium-Pro Microprocessor with its inernal structure
30. Explain in detail about the Components of the Mother board
31. Differentiate all processors and give a comparative study
32. What is SIMD? Explain
33. Describe the improvements of 486 over 386
34. Write notes on Support Chips in the Motherboard
35. Describe about the Memory Organization of the Mother Board
36. Write notes on the Memory techniques of the Mother Board
37. Write notes of Type of Memory

Unit IV

38. Explain in detail about the principles of magnetic storage medium
39. Discuss about the Floppy Disk Drive 8272 in detail
40. Write notes on Hard Disk Drive
41. Discuss about the operations of CD –ROM drive
42. Discuss about CRT Fundamentals and CRT Interface
43. Explain in detail about LCD types and its operation
44. Discuss in detail about the organization of a keyboard
45. Explain about Mouse Interface Types, Commands and its modes of operation

46. Write notes on Printer and its types
47. Write notes on principles of Magnetic Storage devices
48. Discuss about the pins and signals of 8272 A Floppy Disk Controller
49. Discuss in detail about Graphics Display
50. Explain in detail about Keyboard organization
51. Discuss about Mouse Modes of Operation

Unit V

52. Explain in detail about Standard Parallel Port SPP
53. Discuss about USB System in detail
54. Explain in detail about USB Transfer
55. What are the major blocks of Intel 8x931 USB peripheral Controller
56. Discuss about the sequence of a USB transaction
57. List out and explain about the registers of Standard Parallel Port
58. Write down the Process of Handshaking in SPP

KEY ANSWERS

1.	(a)	2.	(b)	3	(a)	4.	(c)	5.	(c)
6.	(c)	7.	(b)	8.	(a)	9.	(d)	10.	(b)
11.	(c)	12.	(b)	13	(b)	14.	(c)	15.	(d)
16.	(b)	17.	(a)	18.	(c)	19.	(d)	20.	(c)
21.	(a)	22.	(b)	23.	(c)	24.	(b)	25.	(c)
26.	(d)	27.	(a)	28.	(b)	29.	(c)	30.	(d)
31.	(b)	32.	(c)	33.	(b)	34.	(a)	35.	(c)
36.	(d)	37.	(b)	38.	(b)	39.	(c)	40.	(d)
41.	(c)	42.	(b)	43.	(a)	44.	(a)	45.	(d)
46.	(a)	47.	(b)	48.	(d)	49.	(a)	50.	(b)
51.	(a)	52.	(d)	53.	(a)	54.	(b)	55.	(a)
56.	(d)	57.	(d)	58.	(d)	59.	(c)	60.	(c)
61.	(c)	62.	(b)	63.	(c)	64.	(a)	65.	(b)
66.	(a)	67.	(b)	68.	(c)	69.	(b)	70.	(b)
71.	(d)	72.	(d)	73.	(d)	74.	(c)	75.	(c)
76.	(a)	77.	(b)	78.	(b)	79.	(b)	80.	(b)
81.	(c)	82.	(c)	83.	(d)	84.	(c)	85.	(c)
86.	(a)	87.	(b)	88.	(c)	89.	(a)	90.	(b)
91.	(d)	92.	(a)	93.	(a)	94.	(b)	95.	(d)
96.	(c)	97.	(a)	98.	(b)	99.	(c)	100.	(a)
101.	(c)	102.	(d)	103.	(b)	104.	(c)	105	(b)
106.	(a)	107.	(c)	108.	(d)	109.	(b)	110.	(a)
111.	(b)	112.	(c)	113.	(d)	114.	(c)	115.	(c)
116.	(a)	117.	(c)	118.	(b)	119.	(d)	120.	(b)
121.	(a)	122.	(c)	123.	(a)	124.	(a)	125.	(b)
126.	(a)	127.	(c)	128.	(b)	129.	(a)	130.	(d)
131.	(b)	132.	(a)	133.	(c)	134.	(a)	135.	(b)
136.	(b)	137.	(b)	138.	(a)	139.	(b)	140.	(c)
141.	(c)	142.	(d)	143.	(a)	144.	(b)	145.	(a)
146.	(a)	147.	(c)	148.	(b)	149.	(c)	150.	(c)
151.	(a)	152.	(c)	153.	(b)	154	(a)	155	(c)

156	(a)	157	(b)	158	(a)	159	(b)	160	(b)
161	(a)	162	(b)	163	(c)	164	(a)	165	(a)
166	(a)	167	(b)	168	(d)	169	(b)	170	(d)
171	(c)	172	(a)	173	(a)	174	(c)	175	(b)
176	(a)	177	(a)	178	(d)	179	(b)	180	(a)

KONGUNADU ARTS AND SCIENCE COLLEGE

(AUTONOMOUS)

COIMBATORE-641029

QUESTION BANK

SUBJECT CODE: 15UIT512

TITLE OF THE PAPER: MOBILE COMPUTING

DEPARTMENT OF INFORMATION TECHNOLOGY

NOVEMBER 2018

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Question Bank

MOBILE COMPUTING 15UIT512

CONTENTS

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1	Section A	1-11
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3	Section C	13-14
4	Key for Section A	15-18

1. ICT is

   a. Information & Communication Technology

   b.Information & Control Technology

   c.Informal & Communication Technology

   d. Interactive & Communication Technology

2. First wireless network is

   a. A-Netz   b. B-Netz   c. C-Netz   d. D-Netz

3. A-Netz uses analog technology at

   a. 160 MHz   b. 150MHz   c. 140 MHzd. 120 MHz

4. The System that was possible to receive an incoming call is

   a. A-Netz   b. B-Netz   c. C-Netz   d. D-Netz

5. The user device that can be either client or server is

   a.Host Mobility   b.N/W mobility

   c. Device Mobility   d. Bearer mobility

6. Presentation and rendering of a content on a particular device is handled by

   a. Middleware b. Gateway   c.Network   d. Content

7. Interface between different transport bearers is

   a. Middleware b. Gateway   c.Network   d. Content

8. Adhoc network is a

   a. SANb.MAN   c. WAN   d. LAN

9. CEPT formed a study group called

   a. GSM   b. GMS   c. GFS d. GFS

10. Electronic mail was introduced in

    a. 1971b. 1972   c. 1973d. 1974

11. Development of electronic computer started during

    a. II world war   b. I world war   c.III world war   d. IV world war

12. Major backbone communication service for internet is.

    a. ASFNET   b. NSFNET   c. ARPANET   d. MSFNET

13. Backbone of the network is

   a. Core   b.Edge   c. Access   d. Terminal

14. The end point or the device by which the service will be accessed is

   a. Core   b.Edge   c. Access   d. Terminal

15. In Three –tier Architecture the first layer is

   a. User Interface   b. Business-logic

   c. Database   d. Middleware

16. The layer deals with user facing ,device handling and rendering is

   a. Data Tier   b. Presentation Tier   c. Logic Tier   d.Network Tier

17. The Final Tier is

   a. Data Tier   b. Presentation Tier   c. Logic Tier   d.Network Tier

18. The middle Tier is

   a. Data Tier   b. Presentation Tier   c. Logic Tier   d.Network Tier

19. Middleware framework that loosely connects different application through

asynchronous exchange of message is _____Middleware

   a. Message Oriented Middleware   b.Database Middleware

   c.Transaction Processing Middleware   d. Communication Middleware

20. The middleware used to connect one application to another is

   a. Message Oriented Middleware   b. Communication Middleware

   c.Transaction Processing Middleware   d. Database Middleware

21. The Calling party is known as.

   a. A-Party   b.B-Party   c. C-Party   d. D-Party

22. The Called Party is known as.

   a. A-Party   b.B-Party   c. C-Party   d. D-Party

23. The transmission rate of T1 system is.

   a. 1.544Mb/s   b. 1.548Mb/s   c. 1.549Mb/s   d. 1.560Mb/s

24. The Transmission rate of E1 is .

   a. 2 Mb/s   b. 4 Mb/s   c.6Mb/s   d .8 Mb/s

25. Number of Channels in T1 is.

   a.23   b. 24   c. 25   d. 26

26. Number of Channels in T2 is.

   a. 34   b. 33   c. 32   d. 31

27. The Signal applied to the line after the calling party has lifted the handset is

    a. Dial Tone   b. Busy Tone   c.RingTone   d. Tone

28. DT is

    a. Dial Tone   b. Busy Tone   c.RingTone   d. Tone

29. Local exchanges are also known as

    a. toll office   b. end office   c.Exchange   d. Trunk office

30. PSTN nodes can be subdivided into_____categories.

    a. 2   b. 4   c. 3   d. 5

31. The multiplexing technique where multiple channels are multiplexed over time is

    a.CDMA   b. TDMA   c.FDMA   d. SDMA

32. Connections between time slot in each frame and data streams assigned to a user remain static in

    a. Fixed TDMA b. Dynamic TDMA c. Variant TDMA   d. TDMA

33. Packet based TDMA is

    a. CDMA   b. TDMA   c.FDMA   d. PRMA

34. Broad band system is

    a. CDMA   b. TDMA   c.FDMA   d. SDMA

35. Which is the most common multiplexing procedures?

    a. CDMA   b. TDMA   c.FDMA   d. SDMA

36. Popular voice cards used for small office interface is

    a.D/41JCT-LS b. D/42JCT-LS c. D/40JCT-LS   d. D/44JCT-LS

37. The grammers that are specified outside of the voiceXML document in another file is

    a. External   b. Inline   c. Internal   d. Built-in

38. The number of slave devices that can be set to communicate with master is

    a. 5   b. 6   c .7   d. 8

39. The protocol that enables the Bluetooth device to join the piconet is

    a. SDP b. L2CAP   c.LMP   d. RFCOMM

40. Bit oriented protocol is

    a. SDP b. L2CAP   c.LMP   d. TCSBIN

41. CEPT formed a study group called

    a. GSM   b. SSM   c. MMS   d. SMS

42. GSM uses a combination of

    a. CDMA&FDMA   b.FDMA&TDMA

    c. CDMA&TDMA   d. FDMA&SDMA

43. MSC is

    a. Mobile Switching Center   b. Mobile Service Center

    c. Mobile Station Center   d. Mobile Switch Center

44. CFU is

    a. Call Forwarding Unconditional   b.Call Forwarding Uniform

    c. Call Forwarding Uncertain   d. CallForwardingUniversal

45. Memory of SIM card contains

    a. 32 Kbytes   b. 32 Kbytes   c. 32 Kbytes   d. 32 Kbytes

46. In SMS user can enter text message upto

    a. 120 Characters   b.150 Characters

    c.160 Characters   d. 140 Charcters

47. The Step that introduces redundancy information into data for error detection and error correction is

    a. Channel coding   b. Interleaving   c. Ciphering   d.Burst Formatting

48. The step that rearranges a group of bits is

    a. Channel coding   b. Interleaving   c. Ciphering   d.Burst Formatting

49. Encrypting block of user data using a Symmetric key is

    a. Channel coding   b. Interleaving   c. Ciphering   d.Burst Formatting

50. The step that add some binary information to the ciphered block is .

    a. Channel coding   b. Interleaving   c. Ciphering   d.Burst Formatting

51. Tranmission rate in E1 interface is

    a. 2Mbits/s   b. 3Mbits/s   c. 4Mbits/s   d. 5Mbits/s

52. MAP is

    a. Mobile Application Part   b. Mobile Active Part

    c. Mobile Advanced Part   d. Mobile Activate Part

53. The real telephone number is

    a. MSISDN   b. TMSI   c. LMSI   d. MRSN

54. Temporary identifier assigned by serving VLR is

    a. TMSI   b. MSRN   c. LMSI   d.ISDN

55. Each Cell is identified by

    a. LA   b. LMSI   c. CI   d. MSRN

56. Uplink frequency for GSM uses

    a. 890-915 MHz   b. 860-915 MHz

    c. 890-950 MHz   d. 860-950 MHz

57. Downlink frequency for GSM uses

    a. 935-960 MHz   b. 960-985 MHz

    c. 960-950 MHz   d. 950-990 MHz

58. For both uplink and down link the bandwidth for GSM system is

    a. 25MHz   b. 28MHz   c.30MHz   d. 35MHz

59. The Authentication algorithm is

    a. A3 b. A4   c.A8   d. A5

60. A8 algorithm generates the output of

    a. 56 bit   b. 58 bit   c. 60 bit   d. 64 bit

61. Transmission characteristics required by an application is indicated by

    a. Reliability b. Throughput c. Quality   d. MeanTime

62. GPRS has the ability to offer data speeds of

    a. 14.4Kbps to 171.2kbps   b. 14.4Kbps to 172.2kbps

    c. 14.5Kbps to 170.2kbps   d. 14.8Kbps to 171.2kbps

63. Interface between GPRS backbone network and external packet data network is

    a. SGSN   b. GGSN   c. MGSN   d. GGMN

64. The elements that needs to be enhanced to recognize and send packet data is

    a. BSS   b. HLR   c. MS   d.MSC

65. GTP is

    a. Gateway Tunneling Protocol   b. Gateway Tune Protocol   c. Gateway Transfer Protocol   d. Gateway Tunnel Protocol

66. Routing and QoS related information between BSS and SGSN is delivered by

    a. LLC   b. BSSGP   c. SNDCP   d. RLC

67. The layer that establish a reliable link between MS and BSS is

a. RLC   b. SNDCP   c. LLC   d. RLC

68. The Physical layer between MS and BSS is divided into _sublayers.

     a. 2   b.3   c. 4   d. 5

69. GPRS/EDGE cellular data network use a mechanism called

     a. APN   b. ARN   c. ASNd. ADN

70. DNS is

     a. Domain Name Server   b. Domain Name Service   c. Domain

Name State   d. Domain Name Station

71. WAP is

     a. Wireless Access Protocol   b. Web Access Protocol

     c. Wireless Application Protocol   d. Wireless Access Protocol

72. MMS is

   a.Multimedia Messaging Service   b. Multimedia Message Service.

   c.Message Multimedia Service   d. Messaging Multimedia Service

73. GPRS provides data rates of

   a. 56-114 Kbps   b. 57-114 Kbps   c. 56-115 Kbps   d. 57-115 Kbps

74. Logical representation of Document is

   a. File   b.Card c.Deck d. Folder

75. Group of multiple cards are called

   a. File   b.Card c.Folder   d. Deck

76. EMS is

   a. Enhanced SMS   b. Enlarged SMS

   c. Embeded SMS   d. Electronic SMS

77. Second generation of Messaging is

   a. SMS   b. MMS   c. EMS   d. Chat

78. The System element that the MMS client is interact with is

   a. MMS Relay   b. WAP Gateway   c. MMS Server d. Email Server

79. Standard WAP services needed to implement MMS is provided by

     a. MMS Relay   b. WAP Gateway   c. MMS Server d. Email Server

80. SMIL is

   a. Synchronized Multimedia Integration Language

   b.Simple Multimedia Integration Language

9

c.Short Multimedia Integratin Language

d.Single Multimedia Integration Language

81. The Spread spectrum typically used to transmit digital digital information is

    a. DS   b. FH   c. Chrip   d. TimeHoping

82. The method that employs a carrier that swept over a range of frequencies is .

    a. DS   b. FH   c. Chrip   d. TimeHoping

83. Central frequency of conventional carrier is altered many times in

    a. DS   b. FH   c. Chrip   d. TimeHoping

84. IS-95 family of standards is known as

    a. Cdma   b. CdmaOne c. Fdma   d. FdmaOne

85. LPC is

    a. Linear Prediction Coding   b. Linear Predict Coding

    c. Least Prediction Coding   d. Least Predict Coding

86. The Mobile Phone unit with SIM Card is called

    a. MS   b. BS   c. BSS   d. MSC

87. One or more BTS is controlled and managed by

    a. MSC   b. BSC   c. BSS   d. IWF

88. Switching center equivalent to telephone exchange is

    a. MSC   b. BSC   c. BSS   d. IWF

89. The MSC selected for handoff is

    a. Target MSC b. Visited MSC c. Tandem MSC d. Visited MSC

90. MSC Providing service to MS is .

    a. Target MSC b. Visited MSC c. Tandem MSC d. Serving MSC

91. Collating the bill data is carried by

    a. HLR   b. VLR   c. IWF   d. DMH

92. One or More MSC is linked to

    a. VLR   b. HLR c. MS   d. AC

93. What is responsible for overall management of wireless network

    a.VLR   b. HLR c. MS   d. OS

94. Communication to MSC with other network is enabled by

    a.VLR   b. HLR c. MS   d. IWF

95. Walsh Code for Pilot channel is

    a.W_0 b. W_1 c. W_{38} d. W_{64}

96. A Mobile communicates with two sectors of the same cell is

    a.hard handoff   b. soft handoff

    c. harderhandoff   d. softer handoff

97. The Case of Interfrequency handoff is

    a.hard handoff   b. soft handoff

    c. harderhandoff   d. softer handoff

98. The Case of Intercell handoff is

    a.hard handoff   b. soft handoff

    c. harderhandoff   d. softer handoff

99. The human voice activity cycle is

    a.20 percent   b. 25 percent   c. 30 percent   d. 35 percent

100. In GSM the data bit rate is

    a. 9.6 kbits/s b. 9.8 kbits/s c. 9.5 kbits/s d. 9.7 kbits/s

SECTION-B

1. What is Mobile computing?
2. What is Dialogue Control?
3. What are Middleware and Gateways?
4. What are Standards?Why they are necessary?
5. Write notes on Internet-The ubiquitous network.
6. Write notes on the History of Computers.
7. Write notes on the History of Internet.
8. Explain Three –Tier Architecture.
9. What is Mobile Computing through Internet?
10. How to make the existing applications Mobile-enabled?
11. Write notes on the Evolution of Telephony.
12. What are Multiple Access Procedures.
13. How to develop an IVR application?
14. What is TAPI?

11

15. Write notes on Bluetooth Protocol.

16. What are the areas of Application for RFID?

17. What is Mobile IP?

18. Write notes on Bluetooth Application Models.

19. How does Mobile IP works?Explain.

20. What is Tunneling?

21. What is Global System for Mobile communication?

22. What is Mobile Station?.

23. Discuss about PLMN Interfaces.

24. What are the Network Aspects in GSM?

25. What are the Strengths of SMS?Explain.

26. Discuss briefly about the Architecture of SMS.

27. Write notes on the Base Station Subsystem.

28. What is Operation and support subsystem?

29. What is GSM Frequency Allocation?

30. What is SMMO?Explain.

31. What is GPRS and packet data network?

32. Write notes on GPRS network enhancements.

33. Discuss the Attachment and Detachment Procedure in GPRS.

34. What is APN?Explain

35. Dicuss about bearers in GPRS.

36. What are the Limitations of GPRS?

37. Write notes on WAP Application Environment.

38. Explain MMS Architecture.

39. Explain Wireless Session Protocol

40. What are the Transaction flows in MMS?

41. What are the different spread spectrum technologies?Explain

42. Write a note on Walsh function.

43. Explain Is-95 Architecture.

44. What is Handoff and Roaming in IS-95?

45. Write a note on CDMA Vs GSM.

46. What are the advantages of Wireless LAN?

47. What is Mobility in Wireless LAN?

48. What is Mobile Adhoc and Sensor Networks?

49. Write a note on Wifi Versus 3G

50. What are the applications of Wireless LAN?

SECTION –C

1. Explain the Evolution of Wireless Networks.

2. What are the different context used for Mobile Computing?

3. What are Mobile Computing Functions?

4. Explain Middleware and Gateways.

5. Explain the different types of Networks.

6. What are the Application and Services of Mobile Computing?

7. How to Develop the Mobile computing Applications?

8. What are Standard Bodies?

9. Explain the History of Computers and Internet.

10. Explain the Three-Tier Architecture.

11. Explain Multiple Access Procedures.

12. How Mobile Computing through telephone is done?Explain.

13. How to develop an IVR application?Explain

14. What is Voice XML?Explain how it fits into web environment.

15. Explain Bluetooth Protocol Stack.

16. How RFID tags are categorized?Explain.

17. What is WIMAX?

18. Explain the Working of Mobile IP.

19. Explain Internet Protocol Version 6(IPV6).

20. Explain Java Card.

21. Explain the Architecture of GSM.

22. Explain GSM Entities.

23. Discuss about the Call Routing in GSM.

24. What are GSM Addresses and Identifiers?Explain.

25. Explain Authentication and Security in GSM.

26. Write notes on SMMT and SMMO .

27. How GSM frequency Allocation is done?Explain.

28. Explain the Network and Switching Subsystem.

29. What is SMS?What are its strengths?

30. Explain SMS Architecture.

31. Explain GPRS Network Architecture.

32. Explain Protocol Architecture of GPRS Transmission Plane.

33. What are GPRS Network Operations?Explain.

34. What are the Data services in GPRS?

35. Write notes on the Applications for GPRS.

36. How Billing and Charging in GPRS is carried out?

37. What is the use of WML?Explain.

38. Explain MMS Architecture and its Transaction flow.

39. What is SMIL?Explain.

40. What are of Applications of GPRS?Explain.

41. Explain Direct Sequence Spread Spectrum.

42. Explain IS-95 Channel Structure.

43. Explain Wireless Data.

44. Discuss about Wireless LAN Architecture.

45. How to deploy a Wireless LAN?Explain.

46. Write about Security in Wireless LAN.

47. Explain 802.11 Architecture.

48. Explain Mobility in Wireless LAN.

49. Write a note on IEEE 802.11 standards.

50. Discuss about the Applications on 3G

ANSWERKEY(SECTION A)

1.a.Information & Communication Technology

2 .a.A-Netz

3.160 MHz

4.b.B-Netz

5.a.Host Mobility

6.a.Middleware

7.b.Gateway

8.a.SAN

9.a.GSM

10.b.1972

11.a.II World war

12.b.NSFNET

13.a.Core

14.c.Access

15.a.User Interface

16.b.Presentation Tier

17.a.Data Tier

18.c.logic Tier

19.a.Message Oriented Middleware

20.b.Communication Middleware.

21.a.A-party

22.b.B-Party

23.a.1.544Mb/s

24.a.2 Mb/s

25.b.24

26.c.32

27.a.DialTone

28.a.Dial Tone

29.b.End office

30.c.3

31.b.TDMA

32.a.Fixed TDMA

33.d.PRMA

34.a.CDMA

35.d.SDMA

36.a.D/41JCT-LS

37.a.External

38.c.7

39.a.SDP

40.d.TCSBIN

41.a.GSM

42.b.FDMA&TDMA

43.a.Mobile Switching Center

44.a.Call Forwarding Unconditional

45.a.32 Kbytes

46.c.160 characters

47. a.Channel coding

48.b.Interleaving

49.c.Ciphering

50.d.Burst formatting

51.a.2Mbits/s

52.a.Mobile Application Part

53.a.MSISDN

54.a.TMSI

55.c.CI

56.a.890-915 MHz

57.a.335-960 MHz

58.a.25MHz

59.a.A3

60.d.64 bit

61.a.Reliability

62. a. 14.4Kbps to 171.2kbps

63. b. GGSN

64. a. BSS

16

65. a. Gateway Tunneling Protocol

66. b. BSSGP

67. a. RLC

68. a.2

69. a. APN

70. a. Domain Name Server

71. c. Wireless Application Protocol

72. a.Multimedia Messaging Service

73. a. 56-114 Kbps

74. c.Deck

75. d. Deck

76. a. Enhanced SMS

77. c. EMS

78. a. MMS Relay

79. b. WAP Gateway

80. a. Synchronized Multimedia Integration Language

81. a. DS

82. c. Chrip

83. b. FH

84. b. CdmaOne

85. a. Linear Prediction Coding

86. a. MS

87. b. BSC

88. a. MSC

89. a. Target MSC

90. b. Visited MSC

91. d. DMH

92. a. VLR

93. d. OS

94. d. IWF

95. a.W_0

96. d. softer handoff

97. a.hard handoff

98. b. soft handoff

99. d. 35 percent

100. a. 9.6 kbits/s

KASC-Information Technology

KONGUNADU ARTS AND SCIENCE COLLEGE
(AUTONOMOUS)
COIMBATORE-641029

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DEPARTMENT OF INFORMATION TECHNOLOGY

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Kongunadu Arts & Science College (Autonomous)
Department of Information Technology
Question Bank

OPERATING SYSTEMS

CONTENTS

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SECTION-A

1. The System that increases the CPU utilization by organizing jobs so that the CPU always has one to execute is called
   (a) Multiprogrammed system   (b) Desktop systems
   (c) Time Sharing system   (d) Realtime Systems
2. The logical extension of Multiprogramming system is
   (a) Multiprogrammed system   (b) Desktop systems
   (c) Time Sharing system   (d) Realtime Systems
3. Tightly coupled systems are called
   (a) Multiprcessor system   (b) Desktop systems
   (c) Time Sharing system   (d) Realtime Systems
4. The system that satisfy request generated by client system is
   (a) server system   (b) Distributed systems
   (c) Time Sharing system   (d) Realtime Systems
5. The Operating system that were neither multiuser nor multitasking is
   (a) Batch   (b) Multiprogramming   (c) Timesharing   (d) Desktop
6. The system that gather together multiple CPUs to accomplish computational task is
   (a) Distributed   (b) Clustered   (c) Real-time   (d) Time-shared
7. In a process the next instruction to execute is specified by
   (a) program counter   (b) Process   (c) PCB   (d) Register
8. The interface between process and the operating system is
   (a) Command-Interpreter   (b) OS   (c) File   (d) System calls.
9. Interface between the user and the operating system is
   (a) System Calls   (b) OS   (c) Command Interpreter   (d) Process
10. A program code is sometimes known as
    (a) text section   (b) data section   (c) program section   (d) program counter.
11. Temporary data is contained in
    (a) stack   (b) data section   (c) program section   (d) program counter.
12. Global variables are contained in
    (a) stack   (b) data section   (c) program section   (d) program counter.
13. Each process represented in the operating system by
    (a) program counter   (b) Process   (c) PCB   (d) Register
14. PCB is a
    (a) Program Control Block   (b) Process Control Block
    (c) Process Code Block   (d) Program Code Block
15. Information associated with a process is contained in
    (a) program counter   (b) Process   (c) PCB   (d) Register
16. Collection of processors that do not share memory is called as
    (a) Distributed system   (b) Clustered System
    (c) Real-time System   (d) Time-shared System
17. API is
    (a) Application Programming Interface   (b)Application Program Interface
    (c) Application Process Interface   (d) Access Programming Interface
18. As processes enter the system they are put into a queue called as
    (a) job queue   (b) ready queue   (c) device queue   (d) waiting queue

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19. The process that are residing in memory and are ready and waiting to execute are kept on

   (a) job queue   (b) ready queue   (c) device queue   (d) waiting queue

20. The list of Processes waiting for a particular I/O device is called

   (a) job queue   (b) ready queue   (c) device queue   (d) waiting queue

21. The selection Process is carried out by

   (a) program counter   (b) Process   (c) schedular   (d) Register

22. The schedular that selects processed from the pool and loads them into memory is called as

   (a) job schedular   (b) cpu schedular   (c) device schedular   (d) queue schedular

23. Which is the long term schedular ?

   (a) job schedular   (b) cpu schedular   (c) device schedular   (d) queue schedular

24. The schedular selects from among the processes that are ready to execute and allocates the CPU to one of them is called as

   (a) job schedular   (b) cpu schedular   (c) device schedular   (d) queue schedular

25. The Short term schedular is called as

   (a) job schedular   (b) cpu schedular   (c) device schedular   (d) queue schedular

26. Switching the CPU to another process is called

   (a) moving   (b) context switch   (c) migrating   (d) Transfering

27. The context of a process is represented in

   (a) program counter   (b) Process   (c) PCB   (d) Register

28. The creating process is called

   (a) new process   (b) parent process   (c) old process   (d) child process

29. The new process created is called

   (a) new process   (b) parent process   (c) old process   (d) child process

30. A new process is created by the system call

   (a) create   (b) new   (c) fork   (d) create_process

31. The system call used after fork system call is

   (a) create   (b) wait   (c) execlp   (d) create_process

32. The system call used to move to ready queue until the termination of the child is

   (a) create   (b) wait   (c) execlp   (d) exit

33. The system call for the termination of the process is

   (a) create   (b) wait   (c) execlp   (d) exit

34. A process that cannot affect the other process is called

   (a) Cooperating process   (b) independent process
   (c) dependent process   (d) Terminating process

35. The process that affect the other process is called

   (a) Cooperating process   (b) independent process
   (c) dependent process   (d) Terminating process

36. The process that wants to communicate must explicitly name the recipient is called

   (a) Direct communication   (b) Indirect Communication
   (c) symmetric communication   (d) asymmetric communication

37. The communication in which messages are sent to and received from mail box is

   (a) Direct communication   (b) Indirect Communication
   (c) symmetric communication   (d) asymmetric communication

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38. If the sending process is blocked then it is called as
    (a) blocking send   (b) block   (c) interrupt   (d) terminate
39. The length of the queue is zero then the queue is called as
    (a) zero capacity   (b) null capacity (c) bounded capacity (d) unbounded capacity
40. If the queue is of finite length then it is called
    (a) zero capacity   (b) null capacity (c) bounded capacity (d) unbounded capacity
41. If the queue is of finite length then it is called
    (a) zero capacity (b) null capacity (c) bounded capacity (d) unbounded capacity
42. The selection of a process is carried out by
    (a) job schedular   (b) cpu schedular (c) device schedular   (d) queue schedular
43. The percent of CPU utilization may range from
    (a)1 to 100   (b) 0 to 100   (c) 1 to 50   (d) 0 to 50
44. The percent of CPU utilization in real time system is
    (a)50   (b) 40   (c) 60   (d) 100
45. The percent of CPU utilization in heavily used system is
    (a) 50   (b)90   (c) 60   (d) 100
46. The number of processes completed per unit time is called
    (a) Seek time   (b) Throughput time (c) Turnaround time   (d) Latency time
47. The interval from the time of submission of a process and time of completion is
    (a) Seek time   (b) Throughput   (c) Turnaround time   (d) Latency time
48. The time from the submission of a request until the first response is produced is called as
    (a) Response time   (b) Throughput   (c) Turnaround time   (d) Latency
49. The simplest scheduling algorithm is
    (a) FCFS   (b) SJF   (c) RR   (d) Priority
50. In which scheduling algorithm indefinite blocking occurs ?
    (a) FCFS   (b) SJF   (c) RR   (d) Priority
51. Time quantum is defined in the algorithm
    (a) FCFS   (b) SJF   (c) RR   (d) Priority
52. The scheduling algorithm that partitions the ready queue into several separate queues is
    (a) FCFS   (b) SJF   (c) Multilevel queue   (d) Multilevel Feedback queue
53. The scheduling algorithm that allow processes to move between queues is
    (a) FCFS   (b) SJF   (c) Multilevel queue   (d) Multilevel Feedback queue
54. The state in which the resources that are held by some other waiting process is termed as
    (a) deadlock   (b) wait   (c) blocked   (d) indefinite
55. A state that leads to a deadlock is called
    (a) Active   (b) Server   (c) Safe   (d) Unsafe
56. The shape that represents process is
    (a) Square   (b) Circles   (c) Arcs   (d) Oval
57. The shape that represents resource is
    (a) Square   (b) Circles   (c) Arcs   (d) Oval
58. A directed edge Pi->Rj is called
    (a) request edge   (b) resource edge   (c) process edge   (d) assignment edge

59. A directed edge Rj->Pi is called
    (a) request edge (b) resource edge   (c) process edge (d) assignment edge
60. Set of methods for ensuring that one of the necessary conditions cannot hold is
    (a) Deadlock Avoidance   (b) Deadlock prevention
    (c)Deadlock detection   (d) Deadlock characterization
61. The collection of processes on the disk that is waiting to be brought into memory
    for execution forms
    (a) job queue   (b) ready queue   (c) input queue   (d) waiting queue
62. The absolute code can be generated during
    (a) compile time   (b) load time   (c) execution time   (d) process time
63. The relocatable code is generated during
    (a) compile time   (b) load time   (c) execution time   (d) process time
64. Binding of the process is delayed during
    (a) compile time   (b) load time   (c) execution time   (d) process time
65. What is used if a process is larger than the amount of memory allocated to it
    (a) Dynamic loading   (b) Dynamic linking   (c) Overlays (d) shared libraries
66. The address generated by the CPU is called
    (a) memory address   (b) CPU address   (c) logical address   (d) physical address
67. The address generated by the memory is called
    (a) memory address   (b) CPU address   (c) logical address   (d) physical address
68. The runtime mapping from virtual to physical address is done by
    (a) memory   (b) CPU   (c) libraries   (d) MMU
69. In storage allocation allocating the first hole is referred to as
    (a) first-fit   (b) worst-fit   (c) best-fit   (d)whole-fit
70. In storage allocation allocating the smallest hole is referred to as
    (a) first-fit   (b) worst-fit (c) best-fit   (d) whole-fit
71. In storage allocation allocating the largest hole is referred to as
    (a) first-fit   (b) worst-fit   (c) best-fit   (d) whole-fit
72. The memory management scheme that permits the physical address of a process to
    be noncontiguous is called
    (a) segmentation   (b) paging   (c) fragmentation   (d)compaction
73. The problem of external fragmentation is called
    (a) segmentation   (b) paging   (c) fragmentation   (d) compaction
74. In shared pages non-self modifying code is
    (a) enterent code   (b) re-enterent code   (c) reusable code (d) non-reusable code
75. User view of memory is supported by
    (a) segmentation   (b) paging   (c) fragmentation   (d) compaction
76. The unique tag that identifies the file within the file system is
    (a) Identifier   (b) name   (c) Type   (d) location
77. In file the simplest access method is
    (a) sequential access (b) Random access   (c) Direct access (d) Indexed access
78. Disks are split into one or more
    (a) partitions   (b) drives   (c) segments   (d) holes

79. Which block contain information needed by the system to boot an operating system?
   (a) boot control block (b) partition control block (c) Shell   (d) kernal.
80. System calls are used to
   (a) open the file   (b) read the file (c) write into the file   (d) all of the above
81. File type can be represented by
   (a) file name   (b) file extension   (c) file identifier   (d) none
82. Which file is a sequence of bytes organized into blocks understandable by the system's linker?
   (a) object file   (b) source file   (c) executable file   (d) text file
83. The set of tracks that are at one arm position make up a
   (a) magnetic disks (b) electrical disks (c) assemblies (d) cylinders
84. The time taken to move the disk arm to the desired cylinder is called the
   (a) positioning time (b) random access time (c) seek time (d) rotational latency
85. The time taken for the desired sector to rotate to the disk head is called
   (a) positioning time (b) random access time (c) seek time (d) rotational latency
86. When the head damages the magnetic surface, then it is called as
   (a) disk crash   (b) head crash   (c) magnetic damage (d) all of the mentioned
87. How a floppy disk is designed to rotate when compared to a hard disk drive
   (a) faster   (b) slower   (c) at the same speed   (d) none of the mentioned
88. Free space list is implemented as
   (a) vector   (b) bit-vector   (c) list   (d) linked list
89. The simplest form of disk scheduling is
   (a) SSTF   (b) FCFS   (c) SCAN   (d) C-SCAN
90. The scheduling algorithm designed to provide a more uniform wait time is
   (a) SSTF   (b) FCFS   (c) SCAN   (d) C-SCAN
91. The first linux kernel version is
   (a) Version 0.1   (b) Version 0.01   (c) Version 1   (d) Version 1.0
92. Kernals with odd minor-version numbers are called
   (a) Odd kernal   (b) Development kernal   (c) Production Kernal   (d) Basic kernal
93. Kernals with even numbered minor-version numbers are called
   (a) Odd kernal   (b) Development kernal   (c) Production Kernal   (d) Basic kernal
94. Important abstractions of the operating system is maintained by
    (a) Kernal   (b) libraries   (c) utilities   (d) shell
95. Standard set of functions are defined by
   (a) Kernal   (b) System libraries   (c) utilities   (d) shell
96. The Programs that perform individual specialized management task is
   (a) Kernal   (b) System libraries   (c) System utilities   (d) shell
97. The Privilaged mode in linux is called
   (a) Kernal mode   (b) System mode   (c) utilities mode   (d) shell mode
98. Which allows the module to be loaded into memory?
   (a) module management   (b) driver registration
   (c) utilities management   (d) shell management
99. What allows to tell the rest of the kernel that a new driver becomes available
   (a) module management   (b) driver registration
   (c) utilities management   (d) shell management

100. What allows different hardware drivers to reserve hardware resources to protect those resources from the accidental use by another driver.
    (a) module management   (b) conflict-resolution mechanism
    (c) utilities management   (d) shell management

SECTION-B

1. Define Operating system.
2. What are the goals of an Operating systems?
3. What is a multiprogrammed system?.
4. Write notes on Timesharing systems.
5. Write notes on Client-Server systems.
6. What is a peer-to-peer system?
7. What are Clustered Systems?
8. What is a Command Interpreter System?
9. What are Real-Time Systems?
10. Write notes on File management.
11. What is a Process?
12. Discuss about Process States.
13. Write notes on Scheduling Queues.
14. What are Schedulars?Explain.
15. How to create and terminate a Process?Explain.
16. How Direct and Indirect Communication takes place?
17. Write notes on Scheduling Criteria.
18. Write notes on Round Robin Scheduling.
19. What is Priority scheduling?Explain.
20. What is Multilevel Queue scheduling?
21. What is a Deadlock?How it happens?
22. What are the necessary conditions for a deadlock?
23. Write a note on Resource-Allocation Graph.
24. Write the Banker's Algorithm for Deadlock Avoidance.
25. What is Address Binding?
26. Discuss about Logical-Versus Physical Address space.
27. What is Swapping?
28. Discuss about Hierarchical Paging.
29. What are Shared Pages?
30. What is Fragmentation?
31. What is Virtual memory?Explain.
32. What are the basic concepts of Demand paging?
33. What are the basic scheme in page replacement?Explain.
34. What is FIFO page replacement?Explain.
35. Write about Second-chance algorithm.
36. Write about FCFS and SSTF scheduling.
37. Give description about File-system Implementation.

38.Explain Contiguous Allocation in File Systems.
39.How Indexed Allocation is done in File Systems?
40.What is Linked Allocation?Explain.
41.What is Unix BSD?Explain.
42.Write about the history of Unix.
43.What are the design principles of Unix system?
44.What is User Interface in Unix System?
45.What is Programmer Interface in Unix System?
46.What are the components of a Linux System?
47.Write about the Driver registration in Kernal module.
48.Write about scheduling in Linux Systems.
49.Explain Memory management in Linux system.
50.How Interprocess Communication is done in Linux?

SECTION-C

1. What is an Operating System?How it is viewed?
2. What are Mainframe Systems?
3. Explain Desktop Systems.
4.What is a Multiprocessor System?
5. What are Distributed Systems?
6. What is Process Management?Explain.
7. Explain Main-Memory Management.
8.What is a Command Interpreter System?
9.What are Operating System Services?
10.Explain System Calls.
11.What is Process Control Block?Explain.
12.What are Operations on Processes?
13.What is a Cooperating Processes?
14.Explain Interprocess Communication.
15.What is CPU Scheduling?Explain.
16.Explain FCFS and SJF scheduling.
17.Explain RoundRobin and Priority Scheduling.
18.Explain Multilevel Feedback Queue Scheduling.
19.What is Multiple-Processor scheduling?
20.Explain Real-Time Scheduling.
21.What is aDeadlock?What are the Characterization of deadlock?
22.Explain Resource Allocation Graph.
23.How to prevent deadlock?Explain.
24.What are the methods for handling deadlock?Explain.
25.How deadlock is avoided?Explain.
26.How to detect deadlock?Explain.
27.What are the methods to recover from the deadlock?Explain.
28.What are Overlays?Explain.
29.Explain Contiguous Memory Allocation.

30.What is Paging?Explain.
31.What are the basic concepts of Demand Paging?Explain.
32.What is Page Replacement?Explain.
33.Explain FIFO Page Replacement and LRU Page Replacement.
34.Explain LRU Approximation Page Replacement.
35.Explain the various Disk Scheduling Algorithms.
36.Explain Thrashing.
37.Explain the Concept of files.
38.Explain the Directory structure.
39.Explain the Allocation methods in Files.
40.What is Free space management?Explain.
41.Explain the Linux Kernel.
42.What are the design principles of Linux?Explain.
43.What are Kernal Modules in Linux System?Explain.
44.Explain the Fork/Exec Process Model in Linux.
45.Explain Memory management in Linux.
46.Explain Interprocess communication in Linux system.
47.What are the design principles of Unix?Explain.
48.Write about the Programmer Interface in Unix.
49.What is User Interface in Unix?Explain.
50.Explain the Interprocess Communication in Unix System.

KEY ANSWERS

1. a) Multiprogrammed system
2. c) Time Sharing system
3. a) Multiprcessor system
4. a) server system
5. d) Desktop
6. b) Clustered
7. (a) program counter
8. d) System calls.
9. c) Command Interpreter
10. a) text section
11. a) stack
12. b) data section
13. (c) PCB
14. (b) Process Control Block
15. (c) PCB
16. a) Distributed system
17. a) Application Programming Interface
18. (a) job queue
19. (b) ready queue
20. (c) device queue
21. (c) schedular
22. (a) job schedular
23. (a) job schedular
24. (b) cpu schedular
25. (b) cpu schedular
26. (b) context switch
27. (c) PCB
28. (b) parent process
29. (d) child process
30. (c) fork
31. (c) execlp
32. (b) wait
33. (d) exit
34. (b) independent process
35. (a) Cooperating process
36. (a) Direct communication
37. (b) Indirect Communication
38. (a) blocking send
39. (a) zero capacity
40. (c) bounded capacity
41. (d) unbounded capacity

42. (b) cpu schedular
43. (b) 0 to 100
44. (b) 40
45. (b)90
46. (b) Throughput
47. (c) Turnaround
48. (a) Response
49. (a) FCFS
50. (d) Priority
51. (c) RR
52. (c) Multilevel queue
53. (d) Multilevel Feedback queue .
54. (a) deadlock
55. (d) Unsafe
56. (b) Circles
57. (a) Square
58. (a) request edge
59. (d) assignment edge
60. (b) Deadlock prevention
61. (c) input queue
62. (a) compile time
63. (b) load time
64. (c) execution time
65. (c) Overlays
66. (c) logical address
67. (d) physical address
68. (d) MMU
69. (a) first-fit
70. (c) best-fit
71. (b) worst-fit
72. (b) paging
73. (d) compaction
74. (b) reenterent code
75. (a) segmentation
76. (a) Identifier
77. (a) sequential access
78. (a) partitions
79. (a) boot control block
80. (d) all of the above
81. (c) file identifier
82. (a) object file

83.(d) cylinders
84.(c) seek time
85.(d) rotational latency.
86.(a) disk crash
87. (c) at the same speed
88. (b) bit-vector
89.(b) FCFS
90.(d) C-SCAN
91.(b) Version 0.01
92.(b) Development kernal
93.(c) Production Kernal
94.(a) Kernal
95.(b) System libraries
96.(c) System utilities
97.(a) Kernal mode
98. a) module management
99.(b) driver registration
100.(b) conflict-resolution mechanism

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QUESTION BANK

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TITLE OF THE PAPER: PRINCIPLES OF DATA COMMUNICATIONS AND
NETWORK

DEPARTMENT OF INFORMATION TECHNOLOGY

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Question Bank
PRINCIPLES OF DATA COMMUNICATIONS AND NETWORK

CONTENTS

2

SECTION - A

1. Which communication involves the exchange of data between two computers?
   a. Data   b. Modem   c. Protocol   d. Transmission Medium
2. What type of data reach only the intended recipient and not someone else?
   a. Correct   b. Accurate   c. Timely   d. Signals
3. Which type of data received in the same form as the one it was sent?
   a. Correct   b. Accurate   c. Timely   d. Signals
4. By what finite amount of time the data must travel from sender to receiver?
   a. Correct   b. Accurate   c. Timely   d. Signals
5. Which defines the structure of data?
   a. Syntax   b. Semantics   c. Timing   d. Protocol
6. Which refers an agreement between sender and the receiver about the data transmission rates and duration?
   a. Syntax   b. Semantics   c. Timing   d. Protocol
7. Which defines the interpretation of the data that is sent?
   a. Syntax   b. Semantics   c. Timing   d. Protocol
8. How many bits are used to represent one symbol in ASCII?
   a. 4   b. 5   c. 6   d. 7
9. How many bit code is used by EBCDIC?
   a. 5   b. 6   c. 7   d. 8
10. By which hardware equipment is used to regenerate the signals?
    a. Amplifier   b. Frequency   c. Bandwidth   d. Repeater
11. Which type of coding scheme is used to convert digital signal into analog signal?
    a. Modem   b. Modulator   c. Demodulator   d. Digital line
12. By which mode of communication is unidirectional?
    a. Simplex   b. Half duplex   c. Full duplex   d. Parallel
13. In which mode, both devices can transmit data not at the same time?
    a. Simplex   b. Half duplex   c. Full duplex   d. Serial
14. By which mode of communication, both devices can transmit data at the same time?
    a. Simplex   b. Half duplex   c. Full duplex   d. Parallel
15. Which divides the physical line into logical segments?
    a. Multiplexing   b. Multiplexer   c. Demultiplexer   d. Frequency
16. What type of signals varying frequencies at different speeds along the medium?
    a. Delay distortion   b. Attenuation   c. Noise   d. Bandwidth
17. What type of acknowledgement sent by the receiver if everything was ok?
    a. ACK   b. NAK   c. Positive   d. Negative
18. Which signal is used to travel electromagnetic signal through any medium?
    a. Bandwidth   b. Attenuation   c. Amplifier   d. Noise
19. Which technique sends one frame of data and waits for an acknowledgement?
    a. Stop and Wait   b. Go-back-n   c. Sliding window   d. ACK
20. Which block of bits are append to the data block in error detection?
    a. VRC   b. LRC   c. CRC   d. Recovery

21. The physical infrastructure components that carry data from one computer to another.
    a. Modem   b. Repeater   c. Multiplexing   d. Transmission media
22. Which media is typically based on some physical cable?
    a. Guided   b. Unguided   c. Transmission media   d. UTP
23. Which structure uses light instead of electric signals?
    a. Optical fiber   b. Light source   c. Coaxial cable   d. STP
24. The multiplexing which allows access to the full bandwidth of the frequency spectrum.
    a. FDMA   b. TDMA   c. CDMA   d. PCM
25. By which communication signals that do not travel along the surface of the earth?
    a. Microwave   b. Terrestrial   c. Satellite   d. Light source
26. Which communication uses transport electromagnetic waves using physical conductor?
    a. Guided   b. Unguided   c. Frequency   d. Bandwidth
27. A fixed frequency channel which is allocated to a transmission pair.
    a. FDMA   b. TDMA   c. CDMA   d. PCM
28. Which coding transmission is unique that allows the receiver on the same frequency?
    a. FDMA   b. TDMA   c. CDMA   d. PCM
29. Which modulation communication between the mobile phone and the cell office?
    a. Frequency   b. Bandwidth   c. MTSO   d. TCO
30. What is the use of analog transmission?
    a. Cellular telephony b. Cell Office   c. Mobile phones   d. TCO
31. What does the problem which helps to eliminate in STP?
    a. Noise   b. Cross talk   c. Error   d. Voltage
32. This type of topology which has a hierarchy of hubs.
    a. Mesh   b. Star   c. Tree   d. Ring
33. Which topology refers to the logical arrangement not the physical appearance?
    a. Bus   b. Ring   c. Hybrid   d. Ring
34. Which network is made up of a number of interlinked nodes?
    a. Switches   b. Hybrid   c. Circuit   d. Packet
35. This type of switching was mainly devised for telephone communication.
    a. Circuit   b. Packet   c. Message   d. Switches
36. Which device connects two or more computer networks together?
    a. Router   b. Routing   c. Packet   d. Circuit
37. Which layer is responsible for error control?
    a. Physical   b. Data link   c. Network   d. Transport
38. Which layer sending raw bits between the source and the destination?
    a. Physical   b. Data link   c. Network   d. Transport
39. Which layer functions establish and maintain the interaction between two hosts?
    a. Session   b. Presentation   c. network   d. Physical
40. Which layer performs data encryption and decryption for security?
    a. Translation   b. Encryption   c. Compression   d. Synchronization
41. Which type of network is privately owned by a single campus?
    a. LAN   b. MAN   c. WAN   d. MAC
42. What type of network is designed to cover an entire city?
    a. LAN   b. MAN   c. WAN   d. CRC
43. Which device is used to establish the connection between a computer and the Ethernet?
    a. Transceiver   b. NIC   c. DMA   d. CRC
44. Which layer uses the connection between hosts?
    a. Ethernet   b. Frame   c. Preamble   d. CSMA
45. Which type of protocol is a dual bus configuration?
    a. DQDB   b. SMDS   c. CSMA/CD   d. MAN

46. Which network acts as a high-speed technology?
　　a. SMDS　　　　　b. DQDB　　　　　c. CSMA/CD　　　　d. LAN
47. Which mechanism is used for packet transmission in WAN technology?
　　a. Stop & Wait　　b. Store & Forward　c. Message　　　　d. Switching
48. What is the process of using routing tables for forwarding packets?
　　a. Router　　　　b. Hop　　　　　　c. Next-Hop　　　　d. Routing
49. This allows what type of users to transmit the data to be sent.
　　a. Frame relay　　b. ALOHA　　　　c. CSMA/CD　　　　d. X.25
50. Which aims to integrate voice and non-voice services together in digital form?
　　a. QAM　　　　　b. ISDN　　　　　c. PCM　　　　　　d. Central Office
51. What is the fundamental concept of ISDN?
　　a. CRM　　　　　b. POTS　　　　　c. Business bit pipe　d. Digital bit pipe
52. Which channels simplify higher bandwidth to the users?
　　a. Bearer　　　　b. Data　　　　　c. Hybrid　　　　　d. Message
53. Which type of protocol is used to describe the generic framework?
　　a. OSI　　　　　b. ISDN　　　　　c. NT　　　　　　　d. TE
54. Which contains the next packet number that expects to receive the virtual circuit?
　　a. RR　　　　　　b. RNR　　　　　c. REJ　　　　　　d. DCE
55. This supports the PVC as well as SVC.
　　a. DLCI　　　　　b. ISDN　　　　　c. X.25　　　　　　d. Frame relay
56. Which field contains the actual data to be sent?
　　a. Data　　　　　b. Information　　c. Frame　　　　　d. Congestion
57. Which bit indicates the frame relay?
　　a. DLCI　　　　　b. DE　　　　　　c. EA　　　　　　　d. FECN
58. What type of bits are used to deal with network congestion problems?
　　a. DLCI　　　　　b. FECN　　　　　c. EA　　　　　　　d. BECNC
59. Which protocol is used to carry voice traffic?
　　a. ISDN　　　　　b. X.25　　　　　c. Frame relay　　　d. PCM
60. The technique which is used to reduce the data size.
　　a. X.25　　　　　b. ISDN　　　　　c. PCM　　　　　　d. CIR
61. Which of the following is used for digitizing analog voice signals?
　　a. ATM　　　　　b. PCM　　　　　c. PVC　　　　　　d. SVC
62. The switch that routes packets based only on the VPI values.
　　a. Switching　　　b. VPC　　　　　c. VP　　　　　　　d. VCI
63. The switch that routes packets based on VPI as well as VCI values.
　　a. Switching　　　b. VPC　　　　　c. VP　　　　　　　d. VCI
64. Which facilitates an interaction between the existing networks and ATM?
　　a. ATM　　　　　b. ITU-T　　　　c. AAL　　　　　　d. CS
65. How many bytes can accepts AAL segments from the AAL layers?
　　a. 46　　　　　　b. 47　　　　　　c. 48　　　　　　　d. 49
66. This provides services for flow control and error control.
　　a. AAL1　　　　　b. AAL3/4　　　　c. AAL5　　　　　　d. ATM
67. This defines parameters related to the performance of an ATM network.
　　a. CBR　　　　　b. VBR　　　　　c. QOS　　　　　　d. AAL
68. This type of protocol is the backbone of the Internet.
　　a. X.25　　　　　b. FTP　　　　　c. TCP/IP　　　　　d. SMTP
69. Which device used to regenerates a signal?
　　a. Router　　　　b. Internet　　　　c. Repeater　　　　d. Gateway
70. What type of topology is a worldwide computer networks?
　　a. Bus　　　　　b. Ring　　　　　c. Internet　　　　　d. Hybrid

5

71. The communication between the sender and the receiver that is reliable and error-free.
    a. TCP   b. UDP   c. FTP   d. SMTP

72. The packets which are flow from source to destination on the same physical network.
    a. Direct   b. Indirect   c. Multicast   d. Network

73. The packets which are flow from source to destination on the different physical network.
    a. Direct   b. Indirect   c. Multicast   d. Network

74. The IP address used to obtain host based on its physical address.
    a. RARP   b. ICMP   c. ARP   d. NIC

75. Which protocol serves as an error reporting mechanism?
    a. RARP   b. ICMP   c. ARP   d. NIC

76. What is the process of recreating an IP datagram from its fragments?
    a. MTU   b. Reassembly   c. Fragmentation   d. SMTP

77. Which enables the detection and reporting of problems in the internet?
    a. ICMP   b. RARP   c. IP   d. WAN

78. The datagram that can travel through a number of different networks to the destination.
    a. IP   b. TCP   c. SMTP   d. FTP

79. Which protocol serves as an error correcting mechanism?
    a. RARP   b. ICMP   c. ARP   d. NIC

80. What is the abbreviation of FTP?
    a. File Transfer Protocol   b. First Transfer Protocol
    c. File Transport Protocol   d. First Transport Protocol

81. Which protocol will automatically checks loss of packets?
    a. UDP   b. TCP   c. IP   d. FTP

82. Which layer will represent the TCP/IP?
    a. Physical   b. Data link   c. Network   d. Transport

83. How many features in TCP?
    a. 2   b. 3   c. 4   d. 5

84. Which control is opposite to the loss control?
    a. Error   b. Sequence   c. Duplication   d. Data

85. What type of communication is point – to – point in TCP?
    a. Simplex   b. Half-duplex   c. Full-duplex   d. LAN

86. Which is used to identify the IP address and the port number?
    a. Ports   b. Sockets   c. Active   d. Passive

87. How many bytes signify the port number of the source computer?
    a. 2   b. 3   c. 4   d. 5

88. How many bytes signify the port number of the destination computer?
    a. 2   b. 3   c. 4   d. 5

89. How many bits will specifies the TCP header?
    a. 2   b. 3   c. 4   d. 6

90. Which protocol is simpler but less reliable than TCP?
    a. IP   b. UDP   c. FTP   d. X.25

91. Which name refers to the group of computers?
    a. SMTP   b. Domain   c. Server   d. TCP/IP

92. What is the abbreviation of DNS?
    a. Domain Name System   b. Domain Number System
    c. Domain Network System   d. Data Name System

93. Which connection is made between control processes of the client and the server?
    a. TP control   b. TP data transfer   c. TCP/IP   d. FTP

94. Which connection is made between data transfer processes of the client and the server?
    a. TP control   b. TP data transfer   c. TCP/IP   d. FTP

95. What command is used for data transfer connection?
    a. Passive open   b. Active open   c. Port number   d. Data transfer
96. Which command is used to log out of the system?
    a. ABOR   b. QUIT   c. DELE   d. LIST
97. Which command is used to abort the previous command?
    a. ABOR   b. QUIT   c. DELE   d. LIST
98. Which command is used to delete a file?
    a. RETR   b. QUIT   c. DELE   d. LIST
99. Which command is used to view the directory structure?
    a. ABOR   b. QUIT   c. DELE   d. LIST
100. Which command is used to upload a file from the client to the server?
    a. STOR   b. QUIT   c. DELE   d. LIST

SECTION - B

1. What is Communication? Explain about the concept of data communications.

2. Explain about the Signal Propagation.

3. Discuss about the concept of representing different symbols.

4. Write short notes on Digital Signal, Digital Transmission.

5. Explain about the Parallel and Serial Communication.

6. Explain about the concept of Error Classification.

7. Discuss about the Cyclic Redundancy Check with its neat diagram.

8. Explain about the Real-life Data Communications.

9. Discuss about the concept of Protocols.

10. Explain about the Analog and Digital Signals.

11. Explain about the concept of Twisted Pair Cable in Guided Media.

12. Discuss about the Microwave Communication in Unguided Media.

13. What is Network Topology? Explain about it.

14. Discuss about the concept of Message Switching.

15. Explain about the Router and Routing.

16. Discuss about the factors affecting Routing Algorithms.

17. Write short notes on Approaches to Routing.

18. What is Routing? Explain about the Link state packet in Link state Routing.

19. Write short notes on Transport Layer in OSI Layer functions.

20. Explain about the concept of Physical Layer.

21. Discuss about the Local Area Networks.

22. Explain about the concept of Ethernet Properties.

23. Discuss about the Token Ring Frame.

24. Write short notes on Switched Multimegabit Data Services.

25. Discuss about the Wide Area network (WAN) Transmission Mechanism.

26. Explain about the concept of ISDN Interfaces.

27. Discuss about the concept of Characteristics of X.25 protocol.

28. Explain the concept of Frame Relay Frame Format.

29. Discuss about the Frame Relay Assembler/ Dissembler (FRAD).

30. Write short notes on X.25 Operation.

31. Explain about the concept of Overview of ATM.

32. Write about the ATM Cells.

33. What is switching? Discuss about it.

34. Discuss about Miscellaneous Topics in ATM.

35. Why Internetworking? Explain its problems.

36. Explain about the concept of Repeaters.

37. Explain about a brief history of the Internet.

38. Explain the concept of TCP/IP Basis.

39. Discuss about the concept of Reverse Address Resolution Protocol.

40. Explain about the Maximum Transmission unit in Datagram Fragmentation and Reassembly.

41. Write any 5 features of TCP.

42. Discuss about the relationship between TCP and IP.

43. Discuss about the concept of TCP Connections.

44. What makes TCP Reliable?

45. What is UDP? Explain about UDP Packet.

46. Explain about the concept of Domain Name System.

47. Discuss about the concept of DNS Name Space.

48. What is Email? Explain it.

49. Discuss about the concept of FTP Connections.

50. Explain about the concept of Data Transfer connection in C/s communication using FTP.

SECTION - C

1. What is an Error? Explain in detail about the concept of Minimizing Errors.

2. Discuss in detail about the concept of Analog Signal, Analog Transmission and Digital Signal, Digital Transmission.

3. Discuss in detail about the concept of Digital Signal, Analog Transmission.

4. What is an Analog Signal? Explain in detail about the concept of Analog Signal, Digital Transmission.

5. Discuss in detail about the concept of Asynchronous, Synchronous and Isochronous Communication.

6. Explain in detail about the concept of Simplex, Half- Duplex and Full- Duplex Communication.

7. What is Multiplexing? Discuss in detail about the Time Division Multiplexing.

8. Illustrate the concept of Error Detection and Correction.

9. Discuss in detail about the concept of Recovery from Errors.

10. Summarize the concept of Types of Multiplexing.

11. What is Topology? Explain about the Types of Network Topology.

12. What is switching? Explain in detail about the Packet Switching in switching basics.

13. Discuss in detail about the Distance Vector Routing in Routing Algorithms.

14. Elaborate the concept of Link state routing in Routing Algorithms.

15. What is Router and Routing? Explain about the Factors affecting Routing Algorithms and Approaches to Routing.

16. Explain in detail about the Protocols in Computer Communication.

17. Discuss in detail about the concept of the OSI Model.

18. What is an OSI Layer functions? Explain about the Data link and Network Layer.

19. Discuss in detail about the concept of Transport and Session Layer in OSI Model.

20. Explain any 3 layers in OSI Layer Functions.

21. What is an Ethernet? Explain its properties, Addresses and Frame in Ethernet.

22. Explain in detail about the Token Ring.

23. Discuss in detail about the concept of Fiber Distributed Data Interface (FDDI).

24. Discuss in detail about the concept of Distributed Queue Dual Bus (DQDB).

25. Elaborate the concept of Packet forwarding in WAN.

26. Explain in detail about the concept of Background of ISDN.

27. Discuss in detail about the concept of the ISDN Architecture.

28. Illustrate the concept of ISDN Protocol Architecture.

29. Discuss in detail about the concept of Packet Format in X.25 protocol.

30. Explain in detail about the concept of the need for Frame Relay.

31. Discuss about the concept of the ATM Layers.

32. Explain in detail about the concept of Bridges.

33. Discuss about the concept of the Routers.

34. Discuss about the concept of Internal Architecture of an ISP.

35. Why IP Addresses? Explain about it.

36. Explain about the concept of TCP/IP Example.

37. Discuss about the concept of IP Addresses.

38. Illustrate the concept of the Address Resolution Protocol.

39. Discuss in detail about the concept of the Internet Control Message Protocol.

40. Explain in detail about the concept of Fragmentation in Datagram fragmentation and Reassembly.

41. Explain about the concept of the Features of TCP.

42. Discuss about the concept of the Ports and Sockets.

43. Discuss in detail about the concept of TCP Packet Format.

44. Illustrate about the DNS.

45. Explain in detail about the Electronic mail.

46. Explain in detail about the concept of FTP.

47. What is protocol? Differences between UDP and TCP.

48. What is DNS? Explain in detail about DNS Server.

49. What is Email? Explain Email Transfer Protocols.

50. Explain in detail about the Client-server communication using FTP.

1. a
2. a
3. b
4. c
5. a
6. b
7. c
8. d
9. d
10. d
11. b
12. a
13. b
14. c
15. a
16. a
17. a
18. d
19. a
20. b
21. d
22. a
23. a
24. b
25. a
26. b
27. a
28. b
29. a
30. a
31. b
32. c
33. c
34. a
35. b
36. a
37. b
38. a
39. a
40. b
41. a
42. b
43. a
44. a

45. a
46. a
47. b
48. d
49. b
50. b
51. d
52. c
53. a
54. a
55. d
56. b
57. b
58. b
59. c
60. c
61. b
62. c
63. b
64. c
65. c
66. b
67. c
68. c
69. c
70. c
71. a
72. a
73. b
74. a
75. b
76. b
77. a
78. a
79. b
80. a
81. b
82. d
83. b
84. c
85. c
86. b
87. a
88. a
89. c

90. b
91. b
92. a
93. a
94. b
95. a
96. b
97. a
98. c
99. d
100. a

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QUESTION BANK

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TITLE OF THE PAPER: Open Source Tools

DEPARTMENT OF INFORMATION TECHNOLOGY

January 2019

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OPEN SOURCE TOOLS- 15UIT613

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Section-A

1. Linux consist of the operating system referred to as
   a) Kernal   b)core   c)shell   d)Windows

2. FTP is a
   a) File Text Protocol   b) File Test Protocol
   c) Fast Transfer Protocol   d) File Transfer Protocol

3. The program that manages communication between hardware and software for user is
   a) OS   b)Process   c)Application   d)Data

4. The software application enables to edit a document making changes and adding new text is called
   a) File   b) Editor   c) Database   d) Folder

5. The system that performs several tasks at the same time is called as
   a) Multiprocessor system   b) Multitasking system
   c) Multiuser System   d) Multiple Tasking system

6. The system in which several users can log in to the system at the same time is called
   a) Multiprocessor system   b) Multitasking system
   c) Multiuser System   d) Multiple user system

7. MULTICS is a
   a)Multiplexed Information and Computing Service
   b)Multiple Information and Computing Service
   c)Multiplexing Informal Computing Service
   d)Multiple Informal Computing Service

8. First commercial version of Unix is
   a)System 1   b)System 2   c)System 3   d)System 4

9. DARPA is
   a) Defence Advanced Research Project Agency
   b) Defective Advanced Research Project Agency
   c) Direct Active Research Project Agency
   d) Direct Advanced Research Project Agency

10. OSF is

    a) Open Source Foundation

    b) One Source Foundation

    c) Open Safe Foundation

    d) One Safe Foundation

11. The core program that runs programs and manages hardware devices is called as

    a) Kernal   b)core   c)shell   d)Windows

12. User Interface is provided by

    a) environment   b)IDE   c)Windows   c)Desktop

13. The way files are stored on a device is organized by

    a) File Structure   b)File Type   c)File Size   d)File

14. Files are organized into

    a) Directory   b)Subdirectory   c)Folder   d)menu

15. The interface between the kernal and the user is

    a) environment   b)IDE   c)Windows   c)Desktop

16. Compressed archives have an extension

    a) com.gz   b)tar.gz   c)comp.gz   d)tar.z

17. ANSI is

    a) American National Standard Institute

    b) American Native Standard Institute

    c) Asian National Standard Institute

    d) Asian Native Standard Institute

18. Universal standard for unix version is defined by

    a) POSIX   b)ANSI   c)IEEE   d)FHS

19. Components in Linux is generally divided into

    a) 2   b)3   c)4   d)5

20. The System that has its own user interface is

    a) Linux   b)Unix   c)Windows   d)POSIX

21. PHP Script starts with the tag

    a) </php   b)php   c)/>   d)php/>

22. Each line of the PHP script is ended with

    a) ;   b):   c),   d)/

23. Multiline comments must be enclosed within

    a) /*   b)/*….*/   c)//   d)//*…*//

24. The line feed character is

    a) \n   b)\r   c)\t   d)\d

25. The carriage return character is

    a)\n   b)\r   c)\t   d)\d

26. Which is used to store both numeric and non-numeric information?

    a) Variable   b)constant   c)identifier   d)global constant

27. The symbol used to assign values is

    a)*   b)=   c) +   d)==

28. Variable name must be preceded by

    a) @   b)#   c) $ d)%

29. The function used to destroy variable is

    a) unset()   b)set()   c)destroy()   d)un_set()

30. The function used to display the variable contents is

    a) var_dump()   b)vardump()   c)_vardump()   d)variable_dump()

31. The operator used to find the type of the particular variable is

    a) gettype()   b)type()   c)get_type()   d)get()

32. The number of arguments used in define() function is

    a) 2   b)3   c)4   d)5

33. The function used to declare a constant is

    a) def()   b)define()   c)#def()   d)#define()

34. The concatenation operator is

    a) (.)   b)(..)   c) +   d).+

35. The statement that chain together multiple if-else statement is

    a) if-elif-else   b)if-elif   c)if-else   d)if

36. Alternative to if-elif-else statement is

    a) For   b)break   c)switch   d)continue

37. The function that retrieves the section of a string is

    a) substr()   b)str()   c)sub_str()   d)string()

38. The function used to compare two strings is

    a) str_cmp   b)strcmp()   c)string_cmp   d)stringcmp()

39. The function that reverses a string is

    a) strrev( )   b)str_rev( )   c)string_reverse( )   d)str_reverse()

40. The specifier for string is

    a) %s   b)%o   c)%d   d)%x

41. Name of an array must be preceded by the symbol

    a) $ b)#   c)%   d)@

42. The function used to destroy variable in an array is

    a) unset()   b)destroy()   c)un_set()   d)exit()

43. The number of elements in an array is displayed using the function

    a) max()   b) count()   c)num()   d)avg()

44. The method used to reset the internal array pointer to the first element is

    a) rewind()   b)reset()   c)restart()   d)return()

45. The method that moves the internal array pointer forward to the next array element is

    a) last()   b)next()   c)front()   d)after()

46. The method that randomly rearranges the sequence of elements in an array is

    a) shuffle()   b)reset()   c)random()   d)return()

47. The method that removes the element at the end of the array is

    a) array_push   b) array_pop()   c)array_shift()   d)array_unshift( )

48. The method that adds the element to the end of the array is

    a) array_push()   b)array_pop()   c)array_shift()   d)array_unshift( )

49. The method that adds the element to the beginning of the array is

    a) array_push()   b)array_pop()   c)array_shift()   d)array_unshift ( )

50. The method that removes an element to the beginning of the array is

    a) array_push()   b)array_pop()   c)array_shift()   d)array_unshift ()

51. The function that sorts an assosiative array by value is

    a) asort()   b)kr_sort   c)ksort   d)k_sort

52. The function that sorts an assosiative array by key is

    a) asort()   b)a_sort()   c)ksort()   d)k_sort()

53. The function that reverse sorts an assosiative array by value is

    a) arsort()   b)ar_sort( )   c)ksort( )   d)kr_sort( )

54. The function that reverse sorts an assosiative array by key is

a) krsort()   c)ksort( )   d)kr_sort()   d)kr_sort()

55. The code used to display month in string is

a) F   b) l   c)D   d)m

56. The code used to display month in numeric is

a) M   b)m   c)F   d)l

57. The code used to display minute is

a) I   b)m   c)s   d) a

58. The code used to display day of the month in numeric is

a) I   b)m   c)s   d) d

59. The code used to display the day of the week in string is

a) M   b)m   c)F   d) D

60. The keyword used to extend a class is

a) extend   b) extends   c)sub   d)implement

61. The contents of the file is read using the function

a) file_get_contents()   b) get_contents()   c)getcontents()   d)get()

62. The function accepts name and path of a file

a) File()   b) Directory()   c)dir()   d)is_file()

63. The function used to read specific number of bytes from the file is

a) f_gets()   b) fgets()   c)f_num()   d)file_gets()

64. End of the file is denoted by

a) feof   b)eof   c)f_eof   d)eof_f

65. The function used to lock a file is

a) lock()   b)flock()   c) f_lock()   d)file_lock()

66. Exclusive lock for writing a file is specified by the function

a) LOCK_EX()   b)LOCK ()   c)LOCK- EX()   d)LOCKEX()

67. Non-Exclusive lock for reading a file is specified by the function

a) LOCK()   b)LOCK_SH()   c)LOCK- SH()   d)LOCKSH()

68. The function used to destroy a lock is

a) LOCK_EX() b)LOCKSH()   c)LOCK ()   d)LOCK_UN()

69. The function used to reset the internal pointer to the first entry in the directory is

a) rewind()   b) reset()   c) return()   d) goto()

70. The current and paraent directories are filtered using the function

    a) isDot()   b) Dot()   c) isCurrent()   d) is_Dot()

71. The function used to retrieve individual file name is

    a) getFilename() b)Filename() c)name()   d)File_name()

72. The method used to return a pointer to the directory named in the function call is

    a) Open_dir()   b)opendir()   c)dir()   d)openDir()

73. Parent directory is represented using

    a) (.)   b) (..)   c) (::)   d)(:)

74. Current directory is represented using

    a) (.)   b) (..)   c) (::)   d) (:)

75. The function used to return the size of the file in bytes is

    a) file_size()   b) filesize() c) size()   d) File_bytes()

76. The function used to return the absolutepath of the file is

    a) real_path   b) realpath() c)path() d)File_path()

77. The function used to test if a directory entry is a directory is

    a) dir()   b) isDir()   c) is_dir() d) is_Dir()

78. The function used to test if a directory entry is a file is

    a) is_file()   b)isfile()   c) dir()   d)isDir()

79. The method used to remove a directory is

    a) removedir() b)rmdir() c)rem_dir() d)remove_dir()

80. The method used to delete a file is

    a) unlink()   b)unset()   c)un_link   c)un_set()

81. XML is

    a)Extensible Markup Language

    b)Extend Markup Language

    c)Extends Markup Language

    d)Exclusive Markup Language

82. Declaration in XML document is referred to as

    a) prolog   b)document prolog   c)extension   d)identification

83. DTD is

    a) Document Type Definition

    b) Data Type Definition

c) Data Type Declaration

d) Document Type Declaration

84. The document that follows all the rules for element and attribute names is called

a) Standard document   b)formed document

c) Well-formed document   d)Standard well-formed Document

85. DOM is

a) Document Object Model

b) Data Object Model

c) Data Object Method

d) Document Object Method

86. SAX is

a)Simple API for XML

b)Source API for XML

c)Simple Application For XML

d)Source Application For XML

87. The structure and Format of XML document is defined by

a) schema   b)XML schema   c)XML standard   d) XML structure

88. XSL is a

a) Extensible Stylesheet Language

b) Extended Stylesheet Language

c) Exclusive Stylesheet Language

d) Extensive Stylesheet Langugage

89. SVG is

a)Scalable Vector Graphics

b)Scale Vector Graphics

c)Simple Vector Graphics

d)Scale Vertex Graphics

90. SOAP is a

a)Simple Object Access Protocol

b)Simplified Object Access Protocol

c)Simple Object Accept Protocol

d)Simplex Object Access Protocol

91. Which method accepts an attribute name and return its value?

    a) Attribute()   b) setAttribute()   c)SetAttribute() d)Set_attribute()

92. Which method returns the collection of all elements from the XML document is

    a) SetElements()   b) SetElementByTag()

    c) SetElementByTagName()   d) SetTag()

93. The method used to generate new DOM element is

    a) CreateElement()   b) create_element()

    c) Create_Element()   d) Create()

94. The method used to create new DOM attribute object is

    a) CreateAttribute()   b) create_attribute()

    c) Create_Element()   d) Create()

95. The texual data enclosed within elements is known as

    a) data   b) text   c) character data   d) character

96. Basic unit of XML is called as

    a) data   b) text   c) elements   d) character

97. The Parser that traverses XML document from Beginning to end is

    a) SAX Parser   b)DOM Parser c)SOAP d)XSL

98. The Parser that read entire XML document is

    a) SAX Parser   b)DOM Parser   c)SOAP   d)XSL

99. Specification for linking XML data structures is

    a) Link   b)XLink   c)X_Link   d)X-Link

100. What separates the information gathered in a web form from the form's appearance?

    a) Forms   b)XForms   c)X_forms   d)X-Forms

Section-B

1.Write notes on Linux Operating System.

2.What are the distributions of Linux?Explain.

3.Give description about Operating System and Linux.

4.Write notes on History of Unix.

5.Write notes on History of Linux.

6.Give description about Overview of Linux.

7.What are third party linux software archives,repositories and Links?

8.Give description about Linux software.

9.What is Linux office and Database software?

10.What are Linux programming sites?Explain.

11.What are the unique features of PHP?

12.Describe about the basic development concepts of PHP.

13.How to destroy variables in PHP?Give example.

14.How to declare a constant in PHP?Explain with an example.

15.Write a note on if-else statement in PHP.

16.What is Interrupting and skipping loops?

17.How to check empty strings in PHP?Explain.

18.How to compare,count and replace a string in PHP?

19.List out the numeric functions in PHP.

20.How to format numbers in PHP?explain.

21.How to store data in Arrays?Give example.

22.How to modify array values?explain with an example.

23.How to use nested arrays in PHP?Give example.

24.Give description about the foreach loop.

25.What are the formatting codes used for the date() function?explain.

26.How to create a User defined function in PHP?

27.How to use arguments and return values in a function?Give example.

28.How to use Dynamic Argument lists?Give example.

29.Write about Recursive functions in PHP.

30.What is a class?How to define it?

31.How to read local files in PHP?Explain.

32.How to read remote files in PHP?Give example.

33.How to read specific segmetns of a file in PHP?Give example.

34.How to write a file in PHP?give example.

35.What is the use of DirectoryIterator object?Explain.

36.How to check if a file or directory exists in PHP?Give example.

37.How to find the absolute file path in PHP?

38.What are the three categories of SQL statements?

39.Give description about MySQL data types.

40.How to retrieve records as Arrays and Objects in SQLite?

41.Give description about basics of an XML document.

42.What is well-formed and Valid XML?

43.What are the Parsing methods used in XML?Explain.

44.Give description about working with elements in XML.

45.How to alter elements and attribute values in XML?

46.How to add New elements and attributes in XML?

47.How to create a new XML document?Explain.

48.Give description about working with elements using PHP's DOM extension.

49.How to alter element and attribute values using DOM?

50.How conversion between DOM and SimpleXML is carried out?

SECTION-C

1.Explain Linux Operating Systems.

2.Explain Linux Distributions and Kernel Sites.

3.Give description about Operating System and Linux

4.Give description about History of Linux.

5.Give description about History of Unix.

6.Explain Overview of Linux.

7.What are Open Source Software.

8.Explain Linux Software.

9.What are Internet servers?Give example

10.Explain Linux documentation.

11.What are the basic development concepts in PHP?

12. How to set and check variable data types in PHP?

13. How to compare variables in PHP?explain with an example.

14. How to declare a variable and constant in PHP?Give example.

15. What is the use of if-elseif-else statement in PHP?

16. Explain the Switch-case statement with an example.

17. List out the String functions in PHP.

18. Write a note on Working with HTML strings

19. Explain the Numeric functions in PHP with an example.

20. How to format strings in PHP?Explain with an example.

21.How data's are stored and values are assigned in an array?Give example.

22.Explain Processing loops with Arrays and Iterators.

23.What are the Array functions in PHP?Explain.

24.How to add and remove array elements in PHP?

25.How to randomize and reverse array in PHP?Give example.

26.How sorting is done in Arrays?Give example.

27.How to use Arguments and Return values in functions? Give example.

28.Explain Dynamic Argument lists and variable scope with an example.

29.Explain how to define and create classes in PHP?

30.Explain Advanced OOP concepts with an example.

31.How to read specific segments of a file?Give example.

32.How to Process directories in PHP?Give example.

33.How to retrieve file attributes?Give example.

34.How to remove files or directories in PHP?Give example.

35.Write about Relationships,foreign keys and SQL statements.

36.How to create and add records in a table?Give example.

37.How to retrieve data from MySQL database?Give example.

38.How to add or modify data using SQLite?

39.How data's are retrieved using PDO database?

40.What are the modifiers used with the fetch() method in PDO?Give example.

41.Explain Anatomy of an XML document.

42.Give description about XML technologies.

43.How to add new elements and attributes to an XML document?Explain.

44.How to create a new XML document?Explain.

45.Explain Working with elements using PHP's DOM Extension.

46. Explain Working with Attributes using PHP's DOM Extension.

47.How to alter elements and attribute values using PHP's DOM Extension?

48.How to create a new XML document using DOM?

49.How to work with elements using SimpleXML Extension?

50.How to alter elements and attribute values using SimpleXML Extension?

KASC-Information Technology

Key Answers:

1. a)Kernal
2. d)File Transfer Protocol
3. a)OS
4. b)Editor
5. b)Multitasking system
6. c)Multiuser System
7. a)Multiplexed Information and
   Computing Service
8. a)System 1
9. a)Defence Advanced Research
   Project Agency
10. a)Open Source Foundation
11. a)Kernal
12. a)environment
13. a)File Structure
14. a)Directory
15. a)environment
16. b)tar.gz
17. a)American National Standard
Institute
18. a)POSIX
19. b)3
20. a)Linux
21. a)</php
22 .a);
23. b)/*….*/
24. a)\n
25. b)\r
26. a)Variable
27. b)=

28. c) $
29. a)unset()
30. a) var_dump()
31. a) gettype()
32.a) 2
33. b)define()
34. a)(.)
35. a)if-elif-else
36. c)switch
37. a) substr()
38. b)strcmp()
39. a)strrev()
40. a) %s
41. a)$
42. a)unset()
43. b) count()
44. a)rewind()
45. b)next()
46. a)shuffle()
47. b)array_pop()
48. a)array_push()
49. d)array_unshift
50. c)array_shift()
51. a)asort()
52. c)ksort()
53. a)arsort()
54. a) krsort()
55. a)F
56.b)m
57.a)I

16

58. d)d

59.d)D

60.b)extends

61.a)file_get_contents()

62.a)File

63.b)fgets()

64.a)feof

65.b)flock()

66.a)LOCK_EX()

67.b)LOCK_SH()

68.d)LOCK_UN()

69.a)rewind()

70.a)isDot()

71.a)getFilename()

72. a)OpenDir()

73.b)(..)

74.a)(.)

75.b)filesize()

76.b)realpath()

77.c) is_dir()

78.a) is_file()

79.b)rmdir()

80.a)unlink()

81.a)Extensible Markup Language

82.b)Document Prolog

83.a)Document Type Definition

84.c)Well-Formed Document

85.a)Document Object Model

86.a)Simple API for XML

87. b)XML Schema

88. a)Extensible StyleSheet   Language

89.a)Scalable Vector Graphics

90.a)Simple Object Access

91.c)SetAttribute()

92.c)SetElementByTagNAme()

93.a)CreateElement()

94.a)CreateAttribute()

95.c)CharacterData

96.c)elements

97.a)SAX Parser

98.b)DOM Parser

99. b)XLink

100.b)XForms

KONGUNADU ARTS AND SCIENCE COLLEGE

(AUTONOMOUS)

COIMBATORE-641029

QUESTION BANK

SUBJECT CODE: (17UIT3S1)

TITLE OF THE PAPER: PYTHON PROGRAMMING I

DEPARTMENT OF INFORMATION TECHNOLOGY

NOVEMBER 2018

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Question Bank

PYTHON PROGRAMMING- I (17UIT3S1)

CONTENTS

SECTION-A

1. Python possesses a property of code is termed as

   a.Dynamic   b. Reusability   c. Interpreted   d. General-purpose

2. The Statement is used to display the output screen.

   a.Print   b. Comment   c. Identifiers   d. Keyword

3. The Symbol, which is used for commenting.

   a.>>>   b. #   c. ( )   d. " "

4. In python, an identifier must begin with

   a.Letter   b. underscore   c. digits   d. all

5. In python, writing the name of a variable.

   a.Declare   b. initialize   c. list   d. code

6. In python, assigning a value to a variable.

   a.Declare   b. initialize   c. assign   d. define

7. In python, how many types of data are supported?

   a.6   b. 5   c. 4   d. 3

8. How many ways to start a python programming?

   a.3   b. 4   c. 5   d. 6

9. The first approach in python programming is

   a.Text editor   b. GUI   c. IDE   d. Notepad

10. The second approach in python programming is

    a.GUI   b. Wordpad   c. Notepad   d. IDE

11. In python programming has a list of reserved words known as

    a.Keywords   b. Identifiers   c. Comments   d. Variables

12. The operator, which is used to assigning a value to a variable.

    a.=   b. ' '   c. #   d. ( )

13. By which string data type is used combine two or more strings.

    a.Slicing   b. concatenation   c. repetition   d. reverse

14. The operator, which is used to separate the items in the list.

    a.#   b. ,   c. [ ]   d. " "

15. The data type is used to store sequence of items.

    a.Tuple   b. list   c. Boolean   d. numeric

16. By which data type order of elements are defined.

a.Numeric   b. list   c. String   d. dictionary

17. The items which are enclosed within square brackets.

a.List   b. tuple   c. String   d. numeric

18. The sequence of items, which are enclosed within parenthesis.

a.List   b. tuple   c. Boolean   d. String

19. The data type which is an ordered collection of data.

a.Dictionary   b. numeric   c. String   d. Boolean

20. The string, which is used to repeat the same string for several times.

a.Slicing   b. concatenation   c. repetition   d. string

21. The operator which is used to compare the values.
a.Arithmetic   b. comparison   c. logical   d. bitwise

22. The operator which is used to calculate the power values.
a.Multiplication   b. Division   c. Exponential   d. modulus

23. The operator which is used to shift the bits towards left.
a.<<   b. >>   c. &   d. |

24. Which one of the following will be printed? Where x = 4.5, y = 2. Print x//y.
a.2.0   b. 2.25   c. 0.25   d. 0.5

25. Which of the following is not an arithmetic operator?
a.*   b. **   c. //   d. =

26. This operator is used to reverse the operand state.
a.Logical AND   b. logical OR   c. logical NOT   d. bitwise
inverse

27. Which operator will reduces the effort of searching an element in the list?
a.Arithmetic   b. comparison   c. membership   d. identity

28. Which operator can shows the item is in list in membership?
a.In   b. not in   c. is   d. not is

29. The method which is used to convert all upper case letters into lower case.
a.Lower()   b. upper()   c. isalpha()   d. isdigit()

30. The method is used to return the first index of search string.
a.Find("string")   b. len("string")   c. lower()   d. upper()

31. What will be the output of str[0:4] if str ="Hello" ?
a.Hello'   b. 'H'   c. 'Hel'   d. 'Hell'

32. Which of the following is the floor division operator?
a./   b. %   c. //   d. \\

33. Which of the following is used to access single character of string?
a.[:]   b. ()   c. [.]   d. []

34. Which of the followingoperator is used for repetition?

a.*   b. +   c. =   d. ()

35. Which of the following is used to display the statement?

a.Print   b. Assignment   c. Expression   d. String

36. How many types of operators in python?

a.6   b. 7   c. 8   d. 9

37. In arithmetic operators, which operator can be used to find the remainder?

a.+   b. -   c. *   d. %

38. What will be the output of x=10, y=12 and z=0, if z=x//y?

a.10   b. 12   c. 2   d. 0

39. What will be the output of test[:3], if test = "Test String"?

a.'Tes'   b. 'est'   c. 'st St'   d. 'Test'

40. What will be the output of s="Hello", if s.alpha()?

a.True   b. False   c. 'Hello'   d. in

41. Iterator based loop is

a. for   b. do…while c. switch   d. break

42. Built-in function in python is

a. name()   b.range()   c. func( )   d. def( )

43. Range( ) function generates sequence of numbers that starts with

a. 0   b. 1   c. n-1   d.n

44. Range () function generates sequence of numbers that ends with

a. 0   b. 1   c. n-1   d.n

45. The first argument in range() is

a. begin   b.start   c. first   d. step

46. The second argument in range () is

a. begin   b.start   c. first   d. end

47. The statement that transfers the execution from the loop to the statement that is immediately following the loop is

a. for   b.return   c. break   d.continue

48. Multiple expression for true can be checked with the help of

a. if   b. if-else   c. if-else-if   d.if elif else

49. In if elif else the optional statement is

a. elif   b. else   c. if   d. elif else

6

50. The function that prompt the input from the user is

      a. input()   b. func()   c. function( )   d. raw_input()

51. The function that does not interpret the input is

      a. input()   b. func()   c. function( )   d. raw_input()

52. The repetition of a set of statements or a piece of code is

      a. loop b. block   c. iteration d.function

53. The word that is reserved in a programming language is

      a. argument   b. parameter   c. keyword d. list

54. The value on which the operator operates is called

      a. operand   b. parameter   c. keyword d. list

55. The statement iterates over the items in sequence in the order is

      a. for   b.return   c. break   d.continue

56. Type casting can be done in

      a. input()   b. func()   c. function( )   d. raw_input()

57. Most preferred function for input is

      a. input()   b. func()   c. function( )   d. raw_input()

58. The function that interprets the input from the user is

      a. input()   b. func()   c. function( )   d. raw_input()

59. The decision making statement is

      a. if   b.return   c. break   d.continue

60. The statement that return the value is

      a. if   b.return   c. break   d.continue

61. Type conversion is

      a. implicit   b. explicit   c. default   d. unknown

62. Type Coercion is

      a. implicit   b. explicit   c. default   d. unknown Interface

63. The module that contain mathematical functions is

      a. mathb. maths   c. sin   d.log

64. The file that contains some predefined codes is

      a. module b. folder c.directory   d. function

65. Collection of related function grouped together is

      a. module b. folder c.directory   d. function

66. To access the function the name of the function is followed by.

   a. (.)   b.(,)   c.(;)   d. (:)

67. Module name is preceded by the statement

   a. import   b. def   c. header   d. module

68. The method used to get time in readable format is

   a. asctime()   b. time()   c. asc()   d. atime()

69. The method used to get current date and time is

   a. asctime()   b. time()   c. asc()   d. atime()

70. Name of the module to display calendar is

   a. calendar   b. date   c. time   d. month

71. The function used to display month is

   a.day()   b.date ()   c.month()   d.cal()

72. The function takes an object as argument is

   a.len() b.help()   c.range()   d. dir()

73. The built-in function that gives detailed information about the object is

   a. len()   b.help()   c.range()   d. dir()

74. A file that contains a collection of realted function and definition is

   a. module   b. folder   c.directory   d. function

75. The statement used to import various modules in python is

   a. def   b. import   c. module   d. modules

76. The detailed information about the module is given by

   a.def()   b.help()   c.module()   d. dir()

77. The syntax of composition of function is

   a.fog()   b.f(g(x))=fog(x)   c.f(f(x))   d. f(g(x))

78. The names of members of the object are returned by using

   a.def()   b.help()   c.name()   d. dir()

79. The time function returns the time tuple with how many items

   a.5   b.7   c.8   d. 9

80. The variables used to pass some values to a function definition between paranthesis is

   a.parameters   b.arguments   c.constants   d.literals

81. Defining a function is known as

      a. function definition b.Intialization c. definition d. Specification

82. In a function definition users have to define .

      a. name of the function   b. list of statements

      c. both a&b   d.parameters

83. In function the block is ended with the statement

      a. end b. return   c. exit d. goto

84. To return more than one value separate the values using

    a. a. Colon(:)   b.Comma(,)   c. semicolon(;)d. dot(.)

85. The default return value is

      a. None   b. void   c. one   d. two

86. The first line in the definition of function is known as

      a. header   b. heading   c. name   d. parameter

87. The header line will always end with

      a. Colon(:)   b.Comma(,)   c. semicolon(;)d. dot(.)

88. The block of the statement always starts with

      a. Colon(:)   b.Comma(,) c. semicolon(;) d. dot(.)

89. What is the use of the return statement?

      a.null value b. initiate a function c. exit a function d. none

90. Which keyword is used to define the block of statements in the function

      a. function   b. def   c. func   d. pi

91. A function is called using the name with which it was defined earlier, followed by:

      a. { }   b. ( )   c. < >   d. [ ]

92. What are the advantages of using functions?

      a.Reduce duplication of code   b. clarity of code

      c. Reuse of code   d. All

93. The caller recognizes the arguments by the parameter name is called

      a.Default arguments   b. Required arguments.

      c. Variable length arguments   d. Keyword arguments

94. The value assigned to a parameter at the time of function definition is called

      a. Default arguments   b. Required arguments.

c. Variable length arguments d. Keyword arguments

95. Function with more number of arguments specified in function definition is

   a. Default arguments   b. Required arguments.

   c. Variable length arguments d. Keyword arguments

96. The number of arguments should match the defined number of parameters is

   a. Default arguments   b. Required arguments.

   c. Variable length arguments d. Keyword arguments

97. In variable length arguments the name of the variable must be preceded by

   a. (:) b.(,) c. (;) d. (*)

98. The statement used to exit a function is

   a. end b. return c. exit d. goto

99. In function definition the rest is abbreviated as

   a. header b. body c. block d. statements

100. Process of repeating a function is known as

   a. recursive b. return c. void d. repeat

SECTION-B

1. Explain about the Python Overview.

2. Describe about the installing on linux OS.

3. Discuss about the installing on windows OS.

4. Explain about the Comments.

5. Describe about the python Identifiers.

6. Discuss about the Reserved keywords.

7. Explain about the declaring a variable.

8. What is list? Explain about it.

9. What is tuple? Explain about it.

10. Explain about the concept of dictionary.

11. Explain about the Arithmetic operator with an example.

12. Explain about the Membership operator with an example.

13. Discuss about the Precedence of operators.

14. What is statement? Explain about it.

15. Explain about the Slicing in String operators.

16. Discuss about the concept of Boolean Expressions.

17. Write a program to find the square root of a number?

18. Write a program to find the area of a rectangle?

19. Write a program to swap the values of two variables?

20. What is an operator? Explain Assignment operator with an example.

21. Write a note on For loop with an example.

22. Write a note on range() function.

23. What is the use of While statement?

24. What are break and continue statements in Python?

25. What is if-elif-else statement?

26. What is the use of input() function?

27. What is raw_input() function?

28. Write a program to find Odd and Even Numbers.

29. Write a program using range() function.

30. Write a program using while statement.

31. What are Mathematical Functions?

32. How Mathematical functions are used in Python?

33. Write a Program to print the calendar for the month of March 1991.

34. What is help() function?

35. Write a Program using help() function.

36. Write a program to print the Cos of 45 degrees.

37. Write about Working with date and time in Python.

38. What is a function?

39. What is Type Conversion?

40. What is Type Coercion?

41. What is a function? Explain about the User- defined Functions.

42. Explain about the concept of parameters with an example.

43. Discuss about any two types of arguments.

44. Explain about the concept of the return statement with an example.

45. Explain about the Python Recursive function.

46. Write a program to find the HCF of given numbers?

47. Write a program to convert the decimal numbers to its binary, octal and hexadecimal equivalents?

48. Write a program to display factors of a given number?

49. Write a program to find the sum of natural numbers using recursion?

50. Write a program to find the factorial of a given number?

SECTION –C

1. What is Python? Explain about the overview of python.

2. What are all the ways to start the python? Explain in detail about installing python on various OS.

3. Explain about the python Comments and identifiers with an neat diagram.

4. What is a variable? Explain about the variables.

5. Explain any 4 types of data in python programming.

6. Discuss in detail about the string data type in python with a neat diagram.

7. Discuss in detail about the Standard data types in python.

8. Explain in detail about the concept of Numeric, List and Tuple data type in python.

9. How to install python on windows OS? Explain with its neat diagram.

10. How to Initializing a variable in python? Explain with an example.

11. Explain about the Arithmetic operator with an example.

12. Explain about the Membership operator with an example.

13. Discuss about the Precedence of operators.

14. What is statement? Explain about it.

15. Explain about the Slicing in String operators.

16. Discuss about the concept of Boolean Expressions.

17. Write a program to find the square root of a number?

18. Write a program to find the area of a rectangle?

19. Write a program to swap the values of two variables?

20. What is an operator? Explain Assignment operator with an example.

21. Explain For loop and give an example to print the letters using using for loop.

22. How to print a range of values using range() function?Give example

23. Explain While ,Break and Continue statements in Python.

24. Write a program to print even numbers using break and continue statements.

25. Explain if elif else statement with example.

26. Write a program in python using while statement

27. Write a Program to print the largest of three numbers.

28. Write a program to print whether the input year is leap or not.

29. Write a program to print fibonacci sequence of n terms.

30. How to display a list of elements using range() function?

31. Explain Built-in functions in Python.

32. What is Type Conversion?Explain.

33. What is Type Coercion?Explain with ex.

34. Give the syntax required to convert an integer number into string and float to an integer value.

35. What are Mathematical functions in Python?Explain.

36. Write a program to get current date and time.

37. Write a program to get formatted date and time.

38. Write a program to print Calendar for a Month.

39. What is Composition of functions?Explain.

40. What is dir() function?Explain.

41. What is a Function? Explain in detail about the concept of user defined functions.

42. Explain in detail about the Parameters and Arguments with an example.

43. Illustrate the concept of Python recursive Functions and the return statement.

44. Discuss in detail about the concept of arguments & explain any two of the arguments.

45. What is a Function? Explain about the Required arguments and Keyword arguments.

46. What is a Function? Explain about the Default arguments and Variable-length arguments.

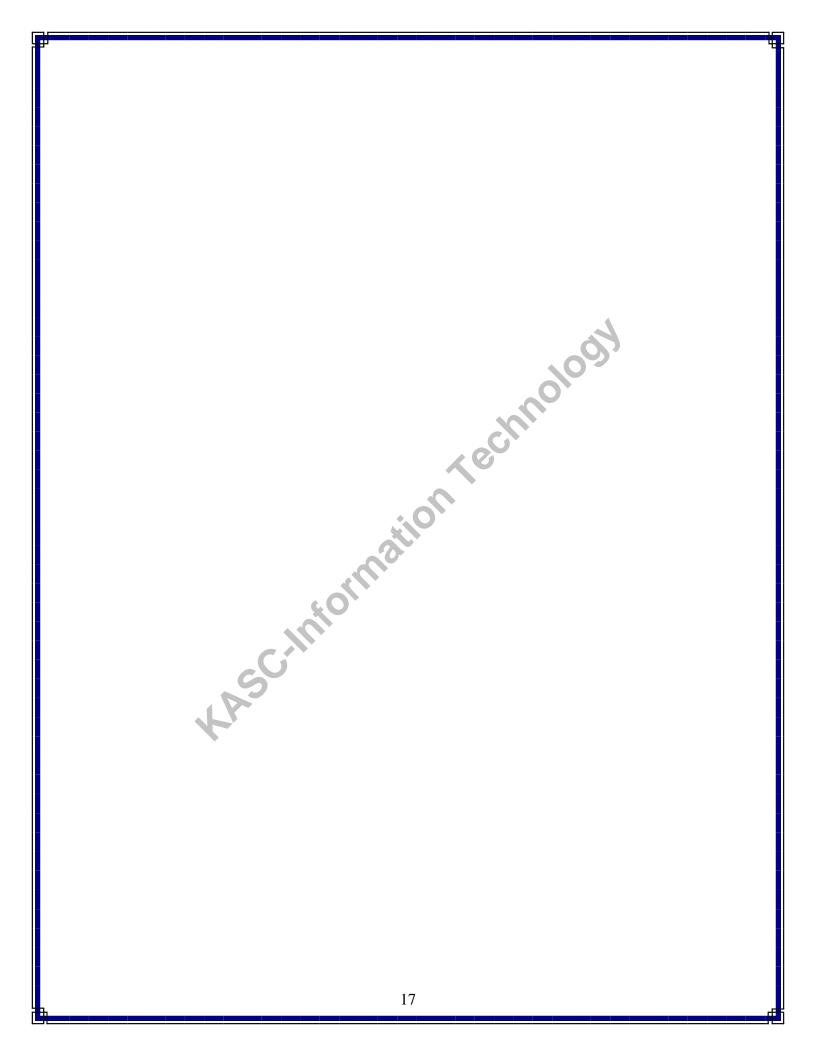47. Write a program to find the sum of natural numbers using recursion and factorial of a given number.

48. Write a program to convert to convert the decimal numbers to its binary, octal and hexadecimal equivalents? Explain the concept of user defined function in this program.

49. Illustrate the concept of user defined function with an example.

50. Discuss in detail about the concept of the return statement with an example program.

ANSWERKEY (SECTION A)

1. b.reusability
2. a.print
3. b.#
4. d.all
5. a.Declare
6. b.initialize
7. a.6
8. a.3
9. a.texteditor
10. a.GUI
11. a.Keywords
12. a.=
13. b.concatenation
14. b.comma
15. a.tuple
16. d.dictionary
17. a.list
18. b.tuple
19. a.dictionary
20. c.repitition
21. b.comparison
22. c.exponential
23. a.<<
24. d.=

25. a.2.0

26. c.logical not

27. c.membership

28. a.IN

29. a.lower()

30. a.find("String")

31. c.Hel

32. c.//

33. d.[]

34. a.*

35. a.print

36. b.7

37. .d.%

38. d.0

39. a.'Tes'

40. a.true

41. a.for
42. b.range()
43. a.0
44. c.n-1
45. a.begin
46. d.end
47. c.break
48. d.if elif else
49. a.elif
50. input()
51. d.raw_input
52. c.iteration
53. c.keyword
54. a.operand
55. a.for
56. d.raw_input()
57. d.raw_input()
58. a.input()
59. a.if

60. b.return

61.   b.explicit

62. a.implicit

63. a.math

64. a.module

65. a.module

66. a(.)

67. a.import

68. a.asctime()

69. b.time()

70. a.calendar

71. c.month()

72. d.dir()

73. b.help()

74. a.module

75. b.import

76. b.help()

77. b.f(g(x))=fog(x)

78. d.dir()

79. d.9

80. a.parameters

81. a.function definition

82. c.both a&b

83. b.return

84. b.comma(,)

85. a.none

86. a.header

87. a.colon(:)

88. a.colon(:)

89. c.exit a function

90. b.def()

91. b.()

92. d.All

93. d.Keyword arguments

94. a.Default arguments

95. c.Variable length arguments

96. b.Required arguments

97. d.(*)

98. b.return

99. b.body

100.   a.recursive

KONGUNADU ARTS AND SCIENCE COLLEGE
(Autonomous)

COIMBATORE-641 029

QUESTION BANK

Subject code : **15UIT305**

Title of the paper : **RELATIONAL DATABASE MANAGEMENT SYSTEM AND ORACLE**

DEPARTMENT OF INFORMATION TECHNOLOGY

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SECTION A

1. The full form of SQL is
   a) Single Query Language
   b) Structured Query Language
   c) Structured Query Log
   d) Single Query Log

2. A command is used to change a table's structure
   a) alter
   b) update
   c) delete
   d) Drop

3. This not a DDL Command.
   a) Rename
   b) Revoke
   c) Grant
   d) Update

4. A command lets user to change one or more fields in a record.
   a) insert
   b) modify
   c) Lookup
   d) Drop

5. SQL Keyword used to retrieve a maximum value is
   a) Top
   b) Most
   c) Lookup
   d) Max

6. Which of the command is used to retrieve data?
   a) Select
   b) update
   c) delete
   d) Drop

7. Which of the following is a SQL Aggregate function?
   a) Left
   b) Avg
   c) Join
   d) Len

8. The SQL statement is used to modify data in database.
   a) alter
   b) update
   c) delete
   d) Drop

9. The SQL statement is used to remove only data in database.
   a) alter
   b) update
   c) delete
   d) Drop

10. A command undo all the operations performed by SQL in transaction.
    a) Rollback
    b) Commit
    c) delete
    d) Truncate

11. The Query finds all cities with temperature, condition, humidity where humidity is in range of 63 to 79

    a) SELECT * FROM weather WHERE humidity IN (63 to 79)
    b) SELECT * FROM weather WHERE humidity NOT IN (63 AND 79)
    c) SELECT * FROM weather WHERE humidity BETWEEN 63 AND 79
    d) SELECT * FROM weather WHERE humidity NOT BETWEEN 63 AND 79

12. The query finds the names of countries whose condition is sunny.

    a) SELECT country FROM location WHERE condition = 'sunny';
    b) SELECT country FROM location WHERE city IN (SELECT city FROM weather WHERE condition = sunny');
    c) SELECT country FROM location WHERE city NOT IN (SELECT city FROM weather WHERE condition = 'sunny');

d) SELECT country FROM location WHERE city UNION (SELECT city FROM weather WHERE condition = 'sunny');

13. The Query decides the order of precedence if NOT, AND , OR with no parenthesis is considered.

   a) NOT will be evaluated first; AND will be evaluated second; OR will be evaluated last.
   b) NOT will be evaluated first; OR will be evaluated second; AND will be evaluated last.
   c) AND will be evaluated first; OR will be evaluated second; NOT will be evaluated last.
   d) The order of occurrence determines the order of evaluation.

14. A query used to add a data to the database is
   a) Insert   b) update   c) Alter   d) Invoke

15. The SQL Alter statement can be used to
   a)   change the table data.
   b)   change the table structure.
   c)   delete rows from the table.
   d)   add rows to the table.

16. The command used to remove rows from a table 'Customer' is
   a)   drop from customer ...
   b)   update from customer ...
   c)   remove from customer ...
   d)   delete from customer where ...

17. The SQL 'Where Clause'

   a) limits the row data that are returned

   b) limits the column data that are returned

   c) limits row & column Data

   d) Does not limits row data

18. The command to eliminate a table from database is

   a) drop table customer;
   b) delete table customer;
   c) remove table customer;
   d) update table customer;

19. The result of a SQL statement is

   a) File   b) Report   c)Table   d) Form

20. The SQL Keyword Between is used

    a)   to limit the columns displayed.
    b)   for ranges.
    c)   as a wildcard.
    d)   to exceed the columns displayed.

21. A row lacking a data value for a particular column that value is said to be
    a)   NULL   b) UNIQUE   c) DEFAULT   d) PRIMARY

22.   The data constraints will be connected to a cell by DBA as
    a) Flags   b) Keys   c) Records   d) Fields

23. The value is not equivalent to a value of zero.
    a) NULL   b) DEFAULT   c) UNIQUE   d) PRIMARY

24. A column when defined as that column becomes mandatory.
    a) NULL   b) UNIQUE   c) NOT NULL   d) PRIMARY

25. The value can be assigned to row at the time of cell creation.
    a)   Default   b) Procedure   c) Function   d) Trigger

26. A key is used to uniquely identify each row in a table.
    a)   null   b) foreign   c) default   d) primary

27. A multicolumn primary key is called a primary key.
    a)   unique   b) composite   c) default   d) new

28. A key represents relationships between tables.
    a)   foreign   b) unique   c) default   d) primary

29. A key constraint is used to enforce integrity rules evaluated based on logical epression.
    a)   foreign   b) unique   c) check   d) primary

30. A is an example of Check key integrity constraint.
    a) NULL   b) UNIQUE   c) NOT NULL   d) PRIMARY

31. . A clause restricts the range of valid values for a column.
    a) Constraint   b) When   c) Where   d) Is

32. A acts as primary key in one table and non prime in another table.
    a)   foreign   b) unique   c) check   d) primary

33. A _____ operator performs pattern matching.
    a)   Between   b) Like   c) Exists   d) when

34. A operator tests column for absence of data.
    a)   Not Null   b) Like   c) Exists   d) Is Null

35. Fine all tuples having temperature greater than Paris.

    a) SELECT * FROM weather WHERE temperature > (SELECT temperature FROM

       weather WHERE city = 'Paris')

    b) SELECT * FROM weather WHERE temperature > (SELECT * FROM weather
       WHERE city = 'Paris')

c) SELECT * FROM weather WHERE temperature > (SELECT city FROM weather WHERE city = 'Paris')

d) SELECT * FROM weather WHERE temperature > 'Paris' temperature

36. The Option satisfies the name of cities with temperature and condition whose condition is either Sunny or Cloudy but temperature is greater than 70°F.

a) SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' AND condition = 'cloudy' OR temperature > 70;
b) SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' OR condition = 'cloudy' OR temperature > 70;
c) SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' OR condition = 'cloudy' AND temperature > 70;
d) SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' AND condition = 'cloudy' AND temperature > 70;

37. Which of the following is not an SQL constraint?
a) Primary Key   b) Alternate Key   c) Foreign Key   d) Unique Key

38. The wildcard in 'Where' clause is useful when an exact match is

a) necessary in a CREATE statement   b) necessary in a SELECT statement
c) not possible in a SELECT statement   d) not possible in a CREATE statement.

39. The SQL Keyword used with wildcards is

a) NOT IN only b) LIKE only   c) IN only   d) IN and NOT IN

40. Under which language is Alter statement included.

a) DML   b) DRL   c) DDL   d) DCL

41.   A Subquery in select statement is enclosed with
a)   parenthesis -- (...)   b) brackets -- [...]
c) CAPITAL LETTERS   d) braces -- {...}

42. A command which is also called inner join is

a) Equijoin   b) Natural   c) Left   d) Right

43. Checks for the condition and displays the available values from left outer join.
a) Left Join   b) Full Join   c) Right Join   d) Natural Join.

44. Is a database object from which multiple users can generate unique integers.
a) Synonyms   b) Sequences c) View   d) Tables

45. The data represents how user wants to see current data
a) Logical   b) Physical   c) View   d) Column

46. The are masks placed upon a table.

    a) Logical   b) Physical   c) View   d) Column

47. A is a form of SQL statement that appears inside another SQL statement.
    a) Subquery   b) Not in   c) Default   d) Checkkey

48. The index consists of
    a) List of keys   b) Pointer to list   c) Keys and pointer   d) Check keys

49. A evaluates true if last fetch has failed when no rows are available.
    a) %NOTFOUND   b) %ISFOUND   c) %FOUND   d) *NOTFOUND

50. A is the logical opposite of %NOTFOUND.
    a) %NOTFOUND   b) %ISFOUND   c) %FOUND   d) *NOTFOUND

51. The returns the number of rows fetched from active set.
    a) %NOTFOUND   b) %ROWCOUNT   c) %FOUND   d) *NOTFOUND

52. A evaluates true if an explicit cursor is open.
    a) %ISOPEN   b) %ROWCOUNT   c) %FOUND   d) *NOTFOUND

53. An entity set is represented by a set of
    a) Attributes   b) tables   c) lines   d) rows

54. Which command is used to redirect all statements and queries during a session?

    a) Truncate   b) Spool   c) TREE   d) CD

55. Acronym of SQL is.

    a) Structured Query Language   b) Standard Query Language

    c) Struct Query Language   d) Simple Query Language

56. The wild-card used to represents zero or more characters.

    a) &   b) %   c) _   d) &&

57. The clause id used to group rows together in a select statement.

    a) PRINT   b) GROUPBY   c) UNDEFINE   d) ORDER BY

58. The oracle function that returns the current date from the system.

    a) DECODE   b) DEFINE   c) SYSDATE   d) SELECT

59. An nonequijoin has a join condition that does not use the operator

    a) =   b) >   c) <   d) !=

60. The set operators UNION, UNION ALL, INTERSECT and MINUS are used to connect output from two individual queries

    a) DEFINE   b) SELECT   c) ORDER BY   d) DECODE

61. Permits DML statements in a table during regular business hours.
    a) Cache   b) Bus   c) Triggers   d) Data Dictionary

62. Oracle loads the compiled procedure in memory area called
    a) SSG   b) SGS   c) SRG   d) SGA

63. provides oracle with highly customized DBMS & prevents invalid transactions.
    a) Trigger   b) Procedure   c) Functions   d) Query.

64. Which of the following is NOT an Oracle-supported trigger?

    a) Before   b) After   c) During   d) Instead Of

65. Triggers be enabled or disabled.

    a) Can   b) Cannot   c) Ought   d) Always

66. Which prefixes are available to Oracle triggers?

    a) : new only   b) : old only   c) Both :new and : old   d) Neither :new nor : old

67. The trigger fires once during every post and commit transactions event.

    a) post commit   b) post change   c) post delete   d) post insert

68. The trigger fires when Leave the Record event occurs.

    a) post record   b) post change   c) post delete   d) post insert

69. A trigger which fires durig post and commit transactions event occurs is

    a) On-Update   b) post change   c) post delete   d) post insert

70. The part contains declaations of cursors, constants ,variables etc.

    a) Declarative   b) Executable   c) Exception handling   d) post insert

71.A part contains PL/SQL block consisting of statements that assign values, control execution and manipulate data.

    a) Declarative   b) Executable   c) Exception handling   d) post insert

72. Oracle loads the compiled procedure in memory area called

    a) System Global Area b) System Garbage Area c) Slow Global Area d) System Gate Area

73. The parameter specifies that you must give a value for argument when calling the procedure.

     a) IN   b) OUT   c) IN OUT   d) REPLACE

74. The parameter specifies that procedure passes a value for argument.

     a) IN   b) OUT   c) IN OUT   d) REPLACE

75. A trigger specifies a Boolean expression that must be true for trigger to fire.

     a) Declarative   b) Restriction   c) Exception handling   d) post insert

76. Which section contains statements to manipulate data and database.

     a) Declaration   b) Exception   c) Executable   d) Begin

77. Which loop the statements are executed atleast once.

     a) Basic   b) do   c) While   d) For

78. Components in a pl/sql record are called

     a) Records   b) row   c) fields   d) arrays

79. DML statements is based on a.

     a) Records   b) Triggers   c) Exceptions   d) Tables

80. A named PL/SQL module that can perform one or more tasks.

     a) Package   b) Records   c) Procedure   d) Functions

81.Is the process of inspecting, cleaning, transferring & modeling data with goal of highlighting useful information.

     a) Data mining   b) Data analysis   c) Data warehouse   d) Data set

82. The term Data Warehouse was coined in the year

     a) 1980   b) 1998   c) 1990   d) 1975.

83. Focuses on modeling & knowledge discovery for predictive purposes.

     a) Data warehouse   b) Data analysis   c) Data mining   d) Data set

84. Is a technique during which data is inspected & erroneous data are collected.

     a) Data cleaning   b) Data mart   c) Data search   d) Clustering.

85. In geographic databases consists of points, lines, polygons, and other map or cartographic features.

     a) Graphic data   b) Non Graphic data   c) Spatial data   d) Index data.

86. Data scrubbing is which of the following?
   a) A process to reject data from the data warehouse and to create the necessary indexes
   b) A process to load the data in the data warehouse and to create the necessary indexes
   c) A process to upgrade the quality of data after it is moved into a data warehouse
   d) A process to upgrade the quality of data before it is moved into a data warehouse

87. Is a subject-oriented, integrated, time-variant, nonvolatile collection of data in support of management decisions.
   a) Data Mining   b) Data Warehousing.   c) Web Mining   d) Text Mining.

88. Expansion for DSS is
   a) Decision Support system   b) Decision Single System   c) Data Storable System.
   d) Data Support System.

89. The data is stored, retrieved & updated in
   a) OLAP   b) OLTP   c) SMTP   d) FTP

90. Describes the data contained in the data warehouse.
   a) Relational data   b) Operational data   c) Metadata   d) Informational data

91. Predicts future trends & behaviors, allowing business managers to make proactive, knowledge-driven decisions.
   a) Data warehouse   b) Data mining   c) Datamarts   d) Metadata.

92. Is the specialized data warehouse database.
   a) Oracle   b) DBZ   c) Informix   d) Redbrick

93. Databases are owned by particular departments or business groups.
   a) Informational   b) Operational   c) Both informational and operational   d) Flat.

94. Data warehouse contains data that is never found in the operational environment.
   a) Normalized   b) informational   c) summary   d) denormalized

95. Test is used in an online transactional processing environment.
   a) MEGA   b) MICRO   c) MACRO   d) ACID.

96. The full form of KDD is
   a) Knowledge database   b) Knowledge discovery in database
   c) Knowledgedatahouse   d) Knowledge data definition.

97. Removing duplicate records is a process called
   a) Recovery   b) data cleaning   c) data cleansing   d) data pruning

98. Data marts that incorporate data mining tools to extract sets of data are called
   a) independent data mart   b) dependent data marts
   c) intra-entry data mart   d) inter-entry data mart.

99. GIS stands for
   a) Geographic Information System   b) Generic Information System
   c) Geological Information System   d) Geographic Information Sharing

100. Number of columns in a table indicates it

    a. Domain   b. Column   c. Degree   d. Row

SECTION B

1. What is the purpose of Database system?
2. What are the disadvantages of DBMS?
3. Write short notes on ER-Diagram.
4. Differentiate Weak and Strong Entity sets.
5. What are DML Commands?
6. Write short notes on usage of where clause with an example query.
7. What is the role of Select Query?
8. What is the use of insert command and update command in sql?
9. List and give short notes on set operations.
10. Differentiate on delete and drop commands in sql.
11. What is the use of NULL value Concept?
12. What is the role of Default value concept?
13. Write short notes on Primary Key concept with suitable example.
14. What is Unique key concept?
15. Define Foreign key and give an example.
16. What is the role of Check Key integrity constraint?
17. Write short notes on Renaming Columns with expressions list.
18. What is Range Searching?
19. Confer on Pattern matching with an example.
20. Give brief notes on String Manipulation..
21. Give three examples for Sophisticated Queries.
22. List and give example queires for Built in functions.
23. What is inner join concept in joined relations?
24. Differentiate Left Join and Right join n in SQL.
25. What is the role of Full Outer Join?
26. Confer on Nested Sub Queries with two examples.
27. Give short notes on Views in SQL.
28. What is a Sequence. Give its role in SQL.
29. What are Synonyms in SQL?
30. Give short notes on Table Indexes.
31. What is a Database Trigger?
32. What are the uses of Database Triggers?
33. Write short notes on types of Triggers with examples.
34. What is a Database trigger applies>Give an example.
35. Give the combinations of triggers.
36. Confer on keywords and Parameters in Triggers.

37.   How will you drop a trigger?Give example Query.
38.   Give the basic of PL/SQL with suitable example.
39.   What is a Stored Procedure?
40.   Write short notes on Stored Functions with an example PL\SQL Query.
41.   Give short note on DSS.
42.   What is Data Mining?
43.   What is Spatial Databse?
44.   What is the role of Geographic Database?
45.   Give short notes on Multimedia Database.
46.   Confer on Moility and Personal Database.
47.   Write short notes on IRS.
48.   What is DSS? Give short notes.
49.   What is WWW?
50.   Write short notes on Default Tabular Reports.

SECTION C

1. Differentiate DBMS and RDBMS concepts.
2. What is the purpose of Database Systems?Discuss.
3. Explain ER Diagram with suitable example and diagrams.
4. Discuss on Strong Entity Set.
5. Give the Codd's Rules in detail.
6. What is Normalization? Discuss its Types with suitable examples.
7. List and explain the data types in SQL.
8. Expand DML and discuss on its types.
9. What is the role of Select Query in detail.
10. How are values stored in a table? Discuss.
11. Discuss on Null Value Concept and Default value concepts in detail.
12. What are the roles of Primary Key Concept and Foreign Key Concept? Discuss.
13. How is Unique Key useful in RDBMS?
14. Explain Check Key Integrity Constraint with relevant queries.
15. How is a Column renamed using Expression list? Give Examples.
16. Discuss on various concepts in Pattern Matching with examples.
17. What is Range Searching? Explain with suitable queries.
18. Discuss on String Manipulation in detail.
19. What are the different Date functions available in Oracle? Discuss.
20. Discuss on creating Reports with Titles and Headings in detail.
21. Give detailed notes on Built in group functions with suitable queries.
22. What is a Sophisticated Query? Discuss.
23. What is a Joined Relation? Discuss its types.
24. What is th role of Nested Sub Query? Give examples.

25. Give a PL/SQL code to implement the concept of Views in Oracle.
26. What is a View? Explain.
27. Explain Sequences in detail with suitable PL/SQL code.
28. Explain the role of Synonym with suitable Queries in Oracle.
29. What is Table Index? Discuss.
30. Give detailed notes on Table Partitioning in Oracle.
31. What is a Database Trigger? What are the uses of DB Triggers?
32. Discuss on types of Database Triggers.
33. How to apply a DB trigger? Discuss.
34. What are the different Combinations of Triggers?Discuss.
35. Difference between SQL and SQL * Plus Environment.What is the role of Stored Precedure in Oracle? Justify with PL/SQL code.
36. How are Stored Functions importanat in Oracle? Discuss.
37. Differentiate the concepts of Procedures and Functions in detail.
38. Give a PL/SQL code to implement concept of Functions?
39. What are the paametersavailable in Procedure. Discuss with PL/SQL code.
40. Explain the concepts in Data Mining with suitable diagram.
41. Differentitae Spatial and Geographic Database.
42. What are Multimedia and Mobility Databases?
43. Discuss on DSS with relevant examples.
44. Give detailed notes on:
      i) DSS   ii) IRS
45. Explain WWW in detail.
46. Discuss on PL/SQL Reports in detail.
47. Discuss the role of Data Warehousing in detail.
48. What is Data Analysis? Discuss.
49. What is the role of Default Tabular report in detail.
50. Write a detailed note on Triggers.

KEY ANSWERS

1. b)	2. a)	3. d)	4. b)	5. d)	6. a)	7. a)	8. b)	9. c)	10. a)
11. c)	12. b)	13. a)	14. a)	15. b)	16. d)	17. a)	18. a)	19. c)	20. b)
21. a)	22. a)	23. a)	24. c)	25. a)	26. d)	27. b)	28. b)	29. a)	30. c)
31. c)	32. a)	33. a)	34. b)	35. d)	36. a)	37. c)	38. b)	39. c)	40. b)
41. a)	42. a)	43. a)	44. b)	45. a)	46. c)	47. a)	48. c)	49. a)	50. c)
51. b)	52. a)	53. d)	54. a)	55. a)	56. b)	57. b)	58. c)	59. a)	60. c)
61. c)	62. d)	63. a)	64. c)	65. a)	66. c)	67. a)	68. a)	69. a)	70. a)
71. b)	72. a)	73. a)	74. b)	75. b)	76. c)	77. a)	78. c)	79. b)	80. c)
81. b)	82. c)	83. c)	84. a)	85. c)	86. d)	87. b)	88. a)	89. b)	90. c)
91. b)	92. d)	93. b)	94. c)	95. d)	96. b)	97. b)	98. b)	99. a)	100. c)

KONGUNADU ARTS AND SCIENCE COLLEGE
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QUESTION BANK

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Konunadu Arts & Science College (Autonomous)
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Question Bank
SOFTWARE ENGINEERING
CONTENTS

Section -A

1) What is the collection of programs written to service other programs?
   a) Embedded Software   b) Business Software
   c) Real-time Software   d) System Software

2) Which provide the technical how-to's for building software?
   a)Methods   b) Tools   c)Process   d) Quality focus

3) Which phase focuses on change associated with error correction and adaptations?
   a) Definition   b) Development   c) Deployment   d) Support

4) Which characteristics of KPA specify the task required to achieve the functions?
   a) Abilities   b) Activities   c) Goals   d) Commitments

5) Which stage of software development delivers the results?
   a) Status quo   b) Problem definition
   c) Technical development   d) Solution Integration

6) Which traceability table mindicates how requirements are related to one another?
   a) Features traceability   b) Source traceability
    c) Dependency traceability   d) Interface traceability

7) What is the symbol used for representing external entities in SCD?
   a) Box b) Arrow   c) Circle   d) Rounded rectangle

8) The task that bridges the gap between system level requirements
   and software design is called
   a) Requirement analysis b) Requirement elicitation   c) Design   d) Coding

9) What is used to determine the value of each function that is required for the system?
    a) Information Deployment   b) Function Deployment
    c) Task Deployment   d) Value analysis

10) Which requirements are implicit to the product or system?
   a) Normal   b) Expected   c) Exciting   d) Optional

11) What type of prototyping is the throw-away paradigm?
   a) Open-ended   b) Close-ended c) Front-ended d) Back-ended

12) Which technique encompasses a broad array of database query and reporting languages?
   a) Formal Specification   b) Prototyping environment
   c) Reusable Software components d) Fourth generation techniques

13) The specification that examinesthe operation of the software as a consequence of external
    events is called
    a) Functional decsription   b) Behavioral description
    c) Information decsription   d) Validation criteria

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14) Which provides detailed description of the problem?
   a) Functional decsription   b) Behavioral description
   c) Information decsription   d) Validation criteria

15) Which is the technique that translates the need of the customer into technical requirements of the software?
   a) QFD   b) FAST   c) Use case   d) Prototyping

16) How many areas are there in software requirement analysis?
   a) Five   b) Four   c) Three   d) Six

17) What are the models of requirement analysis?
   a) Data   c) Functional   c) Behavioral   d) All the above

18) What must be conducted to enable the software to serve the needs of its end user?
   a) Correction   b) Adaptation   c) Enhancement   d) Prevention

19) In which process maturity level the details of the software process and product quality are collected?
   a) Managed   b) Defined   c) Initial   d) Repetable

20) At which process maturity level the peer reviews are conducted?
   a) Level 4   b) Level 5   c) Level 3   d) Level 2

21) Which contains the description of all data objects consumed or produced by the software?
   a) Data dictionary   b) Data   c) Database   d) Data object

22) Which of the following defines the property of a data object?
   a) Data dictionary   b) Data object   c) Attributes   d) Relationships

23) What is used for specifying the number of occurrence of one object related to number of occurrence of another object?
   a) Cardinality   b) Modality   c) Relationship   d) Attributes

24) What value is used if an occurrence of the relationship is mandatory?
   a) 0   b) 1   c) 2   d)-1

25) What symbol is used to represent the process in information flow model?
   a) Rectangle   b) Circle   c) Arrow   d) Double line

26) What does a level 0 DFD is called?
   a) Data flow diagram   b) Context model   c) Data flow graph   d) Bubble chart

27) What symbol is used to represent time-continuous flow?
   a)Dashed arrow   b) Single headed arrow
   c) Double headed arrow   d) Double line

28) What symbol is used to represent the control flow?
   a) Dashed arrow   b) Single headed arrow
   c) Double headed arrow   d) Double line

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29) What is occurred when a data input to a process result in control output?
   a) Control output b) Control input c) Data output d) data condition

30) What is the other name used for first entry is called?
   a) Name   b) Content   c) Alias   d) Supplementary

31) Using which the information enters into the system?
   a) Incoming flow b) Outgoing flow   c) Transform d) Transaction

32) What does a hub from which many action paths emanate is called?
   a) Incoming flow b) Action path c) Outgoing flow d) Transaction center

33) What model is established by the human engineer?
   a) Deign model b) User model c) System image d) System perception

34) What does an implementation of system creates?
   a) Deign model b) User model c) System image d) System perception

35) User with no syntactic knowledge but with little semantic knowledge is called as
   a) Novices   b) Intermittent c) Frequent d) Knowledgeable

36) User with good semantic and syntactic knowledge is called
   a) Knowledgeable   b) Intermittent c)Frequent   d) both (a) and (b)

37) Which defines the set of interface objects and actions?
   a) Interface validation   b) Interface construction
   c) Interface design   d) Analysis & Modeling

38) Which refer to the deviation from average response time?
   a) Help   b) Variability   c) Length   d) Information handling

39) Which is the representation of application specific data?
   a) Source object b) Target object c) Application object d) None

40) Using which the process activated by a given event can be identified?
   a) CSPEC   b) PSPEC   c) CFD   d)PAT

41) Which layer contains the design details that enable each object to communicate with
   its collaborators?
   a) Subsystem layer   b) Class and Object
   c) Message layer   d) Responsibilities layer

42) The degree to which a design method ensures that program once built can be reused
   to create another system is called
   a) Composability   b) Decomposability   c) Protection d) Continuity

43) Using which concurrent tasks are defined?
   a) State diagram   b) CFD   c) DFD   d) PSPEC

44) Which task template is used for invoking the object behavior?
   a) Task name b) Priority   c) Services   d) Coordinates by

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45) Which design method transforms information domain model into the data structure?
   a) Data design   b) Interface design
   c) Component-level design   d) Architectural design

46) Which design method transforms structural elements of the software into a procedural description?
   a) Data design   b) Interface design
   c) Component-level design   d) Architectural design

47) When a design method provides a systematic mechanism for decomposing the problems into subproblems it is called.
   a) Modular Decomposability   b) Modular Composability
   c) Modular Continuity   d) Modular Protection

48) Which is the named sequence of instructions that has a specific and limited function?
   a) Procedural Abstraction   b) Data Abstraction
   c) Control Abstraction   d) Synchronization

49) What is the process of measuring number of modules that are directly controlled by another module is called?
   a) Fan-in   b) Fan-out   c) Depth   d) Width

50) Vertical Partitioning is also called
   a) Factoring   b) Controlling   c) Conditioning   d) Expanding

51) When all processing elements concentrate on one area of datastructure it is called as
   a) Temporal cohesion   b) Communicational cohesion
   c) Procedural cohesion   d) Logical cohesion

52) When a processing elements of a module are related and must be executed in a specific order it is called as
   a) Temporal cohesion   b) Communicational cohesion
   c) Procedural cohesion   d) Logical cohesion

53) What coupling occurs when one module makes use of data or control information maintained within the boundary of another module?
   a) Content   b) Common   c) Control   d) External

54) Using which the number of modules that are directly controlled by a given module is identified?
   a) Fan-in   b) Fan-out   c) Span of control   d) Depth

55) A module that control another module is called
   a) Subordinate   b) Superordinate   c) Connectivity   d) Visibility

56) What type of coupling occurs when a number of modules refer a global data area?
   a) Content   b) Common   c) Control   d) External

57) What type of coupling occurs when a portion of data structure is passed through a module interface?
   a) Stamp   b) Data   c) Control   d) External

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58) What is the Process of Elaboration?
   a) Abstraction   b) Refinement c) Modularity d) Control Hierarchy

59) Which is also called Program Structure?
 a) Abstraction   b) Refinement c) Modularity d) Control Hierarchy

60) Which aspects of architectural design represent the components of a system?
 a) Structural Properties   b) Functional Properties
 c) Related Systems   d) Extra-functional Properties

61) What is the objective of Testing?
 a) Uncover Errors   b) Cover Errors   c) Fault finding d) Debugging

62) Which is not a characteristic of Testing?
   a) Operability b) Observability c) Controllability d) Conditionality

63)   Which is also called as Glass-box Testing?
   a) Unit Testing   b) White-box Testing c) Control Testing   d) Black-Box Testing

64) What is the process of introducing atleast one new set of processing   statements is
   called?
   a) Path   b) Length c) Dependent path d) Independent path

65) Which is the type of White-box testing?
   a) Stress Testing b) Basis-path Testing c) Control Testing d) Black-Box Testing

66) What is the notation used for representing a control flow?
   a) DFD   b) CFD   c) Flow graph   d) Tree

67) What does an arrow on a flow graph is called?
   a) Area   b) Regions   c) Edges   d) Node

68) A node containing a condition is called
   a) Path   b) Process   c) Predicate node   d) Area

69) What is the formula for computing the cyclomatic complexity?
   a) E-N+2   b) E+N-2   c) E-N+1   d) E+N-1

70) What is the value of the link weight in graph matrix, if connection exists?
   a) 1   b) 0   c)2   d)-1

71) What does an areas bounded by edges and node is called?
   a) Edge   b) Regions   c) Area   d) Boundary

72) The testing used for finding incorrect or missing functions is called
   a) Basis path Testing   b) White-box Testing
   c) Control Testing   d) Black-Box Testing

73) What type of testing does a Loop testing belongs to?
   a) Basis path Testing   b) White-box Testing
   c) Control Testing   d) Black-Box Testing

74) What is used to describe the property of a node?
   a) Links   b) Objects   c) Node weight   d) Link weight

75) What is the link used for representing the relationship in both directions?
   a) Symmetric Link   b) Parallel Link
   c) Unsymmetric Link   d) Directed Link

76) What is used to represent a set of valid or invalid states of input conditions?
   a) Equivalence Class   b)BVA   c) Link   d) Weight

77) Which is also called Back-to-Back Testing?
   a) Comparison Testing   b) Eqivalence Testing
   c) Graph-Based Testing   d) Orthogonal Array Testing

78) What testing is used for finding errors asociated with region faults?
   a) Comparison Testing   b) Eqivalence Testing
   c) Graph-Based Testing   d) Orthogonal Array Testing

79) What testing technique is used for finding errors at the boundaries of the input
   domains?
   a) Comparison Testing   b) Eqivalence Testing
   c) Boundary Value Analysis   d) Orthogonal Array Testing

80) How many classes of loops are there?
   a) 1   b) 2   c) 3   d) 4

81) What refers to a different set of activities that ensure that software has been built is
   traceable to customer requirements?
   a) Verification b) Validation c) Testing   d) Debugging

82) What refers to the set of activities that ensure that software correctly implements a
   specific function?
   a) Verification b) Validation c) Testing   d) Debugging

83) Which task does testing belongs to?
   a) Constructive   b) Destructive c) Adaptive   d) Appreciative

84) Which test begins at the vertex of the spiral?
   a) Unit Test b) Integration Test c) Validation Test d) System Test

85) Which testing is used for testing software and other system elements as a whole?
   a) Unit Test   b) Integration Test   c) Validation Test   d) System Test

86) What is the important element of validation process?
   a) Function   b) Review   c) Quality   d) Configuration review

87) Which test is conducted at developer's site by a customer?
   a) Alpha Test b) Unit Test c) Beta Test d) System Test

88) Which test is conducted at one or more customer's site by end user of the software?
   a) Alpha Test b) Unit Test c) Beta Test d) System Test

89) Which testing forces software to fail in variety of ways?
   a) Recovery Test   b) Security Test c) System Test d) Stress Test

90) What is the variation of Stress testing?
   a) Sensitivity Test b) Stress Test c) System Test d) Recovery Test

91) What occurs as a consequence of successful testing?
   a) Debugging b) Verification c) Validation d) Testing

92) Which method is the most common and least efficient for isolating software errors?
   a) Backtracking   b) Brute force   c) Cause elimination   d) None

93) Which approach introduces the concept of binary partitioning?
   a) Backtracking b) Brute force   c) Cause elimination   d) None

94) Which is evaluated by measuring the frequency and severity of failure?
   a)Functionality b) Reliability c) Usability d)Supportability

95) Which is assessed by evaluating the feature set and capabilities of the program?
   a) Functionality b) Reliability c) Usability   d) Supportability

96) Which is the most common type of Reenginerring?
   a) Code Restructuring   b) Data Restructuring
   c) Forward Engineering   d) Reverse Engineering

97) Forward Engineering is also called
   a) Revocation   b) Renovation   c) Restructure   d) Reciprocal

98) Which services provides a bridge between CASE tools   and their integration framework and the environment architecture?
   a) Portability services   b) Operating Systems
   c) Hardware Platform   d) Framework

99) Using which tool potential risks are identified?
   a) Risk Analysis   b) Project Management
   c) Process Modeling   d) Management

100) Which tool is used to acquire data to be used during testing?
   a) Data Acquisition   b) Static Measurement
   c) Test Management   d) Dynamic Measurement

SECTION B

1) What is Software and Software Engineering?
2) What is the Evolving role of the Software?
3) List out the Software Applictions.
4) List out the Umberella Activities.
5) Write short note on Software Process Models.
6) Discuss about the Prototyping Model.
7) Discuss about QFD.
8) Write short note on Requirement Analysis
9) How to select the Prototyping Approach?
10) Discuss about Requirement management.
11) Discuss about the Elements of Analysis model?
12) Write short note on Cardinality and Modality.
13) Define Data Dictionary along with its information.
14) Discuss about Control Specification.
15) Discuss about Process Specification and Process Activation Table.
16) Write short note on Control Flow Model.
17) How to map Requirements into software Architecture?
18) Write short note on Design issues in Interface Design.
19) Write a brief note about the User Interface design process.
20) What is attribute and Relationship?
21) List out the layers of OO Design Pyramid.
22) Difference between Conventional and OO Approaches.
23) Write short note on Intersubsystem communication.
24) Discuss about Design Principles.
25) Explain about the Evolution of Software design.
26) Write a brief note on Abstraction.
27) Give a brief note about Control Hierarchy.
28) List out the set of Design Heuristics.
29) Write short note on Datastructures.
30) Write short note on software Archirecture.
31) List out the Testing Principles.
32) What are the objectives of Testing?
33) Discuss about White box testing.
34) Write short note on Flow graph notation.
35) Give brief note on Graph Matrices.
36) Discuss about Data Flow Testing.
37) How many Loop Testings are there?
38) Discuss about Comparison Testing.
39) Write short note on Boundary Value Analysis.
40) Define Orthogonal Array Testing.
41) Difference between Verification and Validation.
42) Give a brief note about the Software testing strategy.
43) Differenciate between Alpha testing and Beta Testing.
44) What is the process of Debugging?
45) List out McCall's Quality Factors.
46) Discuss about FURPS Quality Factors.
47) Discuss about Building Blocks for CASE tools.

48) Write short note on Reverse Engineering.
49) How to understand Reverse Engineering Processing?
50) What are the Approaches for debugging?

SECTION-C

1) List out the Software characteristics in detail.
2) Explain about different Software myths in detail.
3) Illustrate about the Software Engineering a Layered Technology.
4) Discuss in detail about Software process
5) Give a brief note about Requirement Elicitation and Requirement Specification.
6) Explain the concept of System modelling in detail.
7) What are the steps involved in Requirement Elicitation? Explain in detail.
8) Discuss about Software Prototyping in detail.
9) Explain about Specification in detail
10) Explain in detail about Requirement validation and Requirement Management.
11) Explain in detail about Data Modeling.
12) Discuss in detail about Data Flow Diagram.
13) How Ward and Mellor have extended the DFD for Real-time Systems?
14) Discuss about Hatley and Pirbhai extension in detail.
15) How to create an Entity/ Relationship diagram? Explain in detail.
16) Discuss about Transform Mapping in detail.
17) Discuss about Transaction Mapping in detail.
18) Explain in detail about User Interface Design.
19) Discuss about Interface Design in detail.
20) How to create a Data flow model and Control flow model.
21) Explain in detail about OO Design Issues
22) Explain in detail about An Unified approach to OOD.
23) Discuss about the System design Process.
24) Briefly explain the concept of Concurrent and Subsytem Allocation.
25) Explain the concept of the Task Management and Resource Management in detail.
26) Illustrate in detail about Software design and Software Engineering.
27) Discuss in detail about the concepts of Modularity.
28) Listout the types of Cohesion and Coupling in detail.
29) What is meant by Effective Modular Design? Explain in detail.
30) Explain in detail about any four Design Concepts.
31) Discuss in detail about Software Testing Fundamentals.
32) Explain the concept of Testability in detail.
33) Explain about Basis Path testing in detail.
34) How to calculate Cyclomatic Complexity? Explain in detail.
35) How to derive a test case? Explain in detail?
36) Illustrate in detail about Control structure Testing.
37) Discuss about Conditional Testing in detail.
38) What is meant by Graph based testing methods? Explain in detail.
39) Briefly explain the concepts of Equivalence Partitioning and Boundary Value
    Analysis.
40) What does a Black-box Testing attempts to test? Explain in detail.
41) Discuss about the Strategic Approach for Testing in detail.

42) Explain about Validation Testing in detail.
43) In detail explain about System Testing.
44) What is the Art of Debugging? Explain in detail.
45) Discuss about Software Quality Factors in detail.
46) Illustrate the concept of Software Reengineering in detail.
47) Explain about Reverse Engineering in detail.
48) What is meant by a Software Reengineering process model? Explain in detail.
49) How Reverse Engineering can be used to understand Process, Data and User
    Interfaces? Explain in detail.
50) Explain in detail about the taxonomy of CASE tools.

ANSWER KEYS FOR SECTION A:

1)	D
2)	A
3)	D
4)	B
5)	D
6)	C
7)	A
8)	A
9)	B
10)	B
11)	B
12)	D
13)	B
14)	C
15)	A
16)	A
17)	D
18)	D
19)	A
20)	C
21)	A
22)	C
23)	A
24)	B
25)	B
26)	B
27)	C
28)	A
29)	D
30)	C
31)	A
32)	D
33)	B
34)	C
35)	A
36)	D
37)	C
38)	B
39)	C
40)	D
41)	C
42)	A
43)	A
44)	D

45)	**A**
46)	**C**
47)	**A**
48)	**A**
49)	**B**
50)	**A**
51)	**B**
52)	**C**
53)	**A**
54)	**A**
55)	**B**
56)	**B**
57)	**A**
58)	**B**
59)	**D**
60)	**A**
61)	**A**
62)	**D**
63)	**B**
64)	**D**
65)	**B**
66)	**C**
67)	**C**
68)	**C**
69)	**A**
70)	**A**
71)	**B**
72)	**D**
73)	**B**
74)	**C**
75)	**A**
76)	**A**
77)	**A**
78)	**D**
79)	**C**
80)	**D**
81)	**B**
82)	**A**
83)	**B**
84)	**A**
85)	**D**
86)	**D**
87)	**A**
88)	**C**
89)	**A**
90)	**A**
91)	**A**
92)	**B**

93)	**C**
94)	**B**
95)	**A**
96)	**A**
97)	**B**
98)	**A**
99)	**A**
100)	**A**

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KONGUNADU ARTS AND SCIENCE COLLEGE
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QUESTION BANK

SUBJECT CODE: 17UIT408
TITLE OF THE PAPER: VISUAL BASIC .NET
DEPARTMENT OF INFORMATION TECHNOLOGY

JANUARY 2019

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Kongunadu Arts & Science College (Autonomous)
Department of INFORMATION TECHNOLOGY
Question Bank
VISUAL BASIC.NET

CONTENTS

SECTION - A

1. Which application runs on a DOS window?
   a. Windows   b. Web   c. Mobile   d. Console
2. What does a CLR's intermediate languages is called?
   a. IL   b. LI   c. MSIL   d. IL or MSIL
3. Which namespace includes classes that are used to implement ASP.Net security in web server applications?
   a. System.web   b. System.web.security   c. System.web.services   d. System.security
4. Where the components that are invisible at run time will appear?
   a. Dynamic window   b. Solution explorer   c.Component tray   d.Task list
5. Which statement must be set to on, if the declaration of the variable is required before they are used?
   a. Option   b. Option Explicit   c. Option Compare   d. Option Strict
6. Which keyword is used to declare a dynamic array?
   a. Dim   b. Redim   c. private   d. Public
7. Which operator is used to perform Integer division?
   a. /   b. \   c. %   d. \\
8. Which operator is used to perform pattern matching?
   a. Is   b. AddressOf   c. GetType   d. Like
9. Which operator has highest precedence?
   a. Modulus   b. Disjunction   c. Negation   d. Exponentiation
10. Which function is used to return one of the number choices based on an index?
   a. Select case   b. Switch   c. Choose   d. For Each
11. Which function evaluates a list of expressions and return an object value?
   a. Select case   b. Switch   c. Choose   d. For Each
12. Which function is used to get the current date (or) time?
   a. TimeOfDay   b. TimeSerial   c. DateAdd   d. DateDiff
13. Which loop function is used to loop over elements in an array?
   a. Do   b. For   c. For Each Next   d.While
14. Which looping statements loop while the condition remains true?
   a. Do   b. For   c. For Each Next   d.While
15. Which statement is used to execute statement using a particular object?
   a. Import   b. Export   c. With   d. Declaration
16. Which keyword is used to pass the copy of the string to the procedure?
   a. ByVal   b. ByRef   c. ParamArray   d. ByArray
17. Which keyword is used to pass the location of variable to the procedure?
   a. ByVal   b. ByRef   c. ParamArray   d. ByArray
18. In which scope the element declared is available only to the code within modules, class or structure?
   a. Block scope   b. Procedure scope   c. Module scope   d. Namespace scope

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19. Which exception handling specifies the location of the exception handling code within a procedure?
    a. Structured   b. Unstructured   c. Exceptional   d. Unexceptional
20. Which block is always executed when execution leaves any part of the try statement?
    a. Try   b. Catch   c. Finally   d. Throw
21. What does a main area of a form is called?
    a. Client area   b. Server area   c. Center area   d. Form area
22. Which class property holds the currently active form for the entire applications?
    a. Active form   b. Active control   c. Auto scale   d. Accept button
23. What property is set to true for setting control tab order?
    a.TabStop   b. TabIndex   c. Focus   d. Location
24. Which value specifies the AbortRetryIgonre button?
    a. 0   b. 1   c. 2   d. 3
25. In which position the input box is displayed if the xpos is omitted?
    a. Centered horizontally   b. centered vertically   c. Horizontally   d.Vertically
26. Which mouse event is handled when the mouse pointer enters the control?
    a. Mouse down   b. Mouse enter   c. Mouse move   d. Mouse leave
27. Which symbol is used to represent Mnemonic character?
    a. @   b. $ c. &   d. *
28. Which property is set to make a textbox look like a label box?
    a. Backcolor=control   b. Backcolor=window   c. Backcolor=flat   d. Backcolor=style
29. Which property is set to make a label box look like a text box?
    a. Backcolor=control   b. Backcolor=window   c. Backcolor=flat   d. Backcolor=style
30. What property of a link label is used to create a hyperlink?
    a. LinkArea   b. ActiveLink   c. LinkClicked   d. LinkColor
31. Which control is used to divide a form into regions by functions?
    a. Panels   b. Group box   c. Check box   d. Radio buttons
32. Which grouping control displays caption and does not have scroll bars?
    a. Panels   b. Group box   c. Check box   d. Radio buttons
33. Which method is used to transfer the focus?
    a. Set   b. Get   c. Link   d. Focus
34. Which check state property of a check box is used to make a check box appears in a gray background?
    a. Checked   b. Unchecked   c. Cleared   d. Indeterminate
35. Which property is used to turn the radio buttons into button?
    a. Appearance=button   b. Appearance=flat
    c. Appearance=normal   d. Appearance=bordered
36. Which property returns the object corresponding to the item?
    a. SelectedIndex   b. SelectedIndices   c.SelectedItem   d. SelectedItems
37. Which property returns an integer value that corresponds to the selected item?
    a. SelectedIndex   b. SelectedIndices   c.SelectedItem   d. SelectedItems
38. Which method is used to get the index of an object in a list box?
    a. IndexOf   b. SelectedIndex   c. SelectedIndices   d. SelectedItem

39. Which dropdown style property allows selecting only from the drop down list?
    a. Drop Down   b. Drop Down list   c. Drop Down   d. Simple
40. Which size mode property of a picture box allows stretching of the image?
    a. Normal   b. AutoSize   c. StretchImage   d. CenterImage
41. Which event gets triggered when the scrollbar's value changes by even one unit?
    a. Value changed   b. Scroll   c. Value   d. Moved
42. What is the default range of the scroll bar?
    a. 0-100   b. 0-50   c. 0-10   d. 0-1000
43. Which property of the splitter is used to set the cursor that appears with the splitter?
    a. Enabled   b. Hsplit   c. Vsplit   d. Cursor
44. Which event of the splitter triggers when the splitter has moved?
    a. Splitter Moved   b Splitter Moving   c. Split Moved   d. Splitter Movable
45. Which property specifies the distance between ticks?
    a. Tick Frequency   b. Tick Style   c. Tick Size   d. Tick
46. Which property sets the foreground color of the calendar trailing dates?
    a. Calendar forecolor   b. Calendar Trailing forecolor
    c. Calendar Title forecolor   d. Calendar Month forecolor
47. Which item is used to represent two-digit minute?
    a. MM   b. mm   c. MM/DD   d. MM/DD/YY
48. Which property of notify icon is used to set the icon visible in the windows system tray?
    a. Icon   b. Text   c. Context menu   d. Visible
49. Which property of the tooltip gets the time before the tooltip appears?
    a. Automatic Delay   b. Initial Delay   c. Show Always   d. Active
50. Which property sets the time between timer ticks?
    a. Enabled   b. Interval   c. Start   d. Stop
51. Which event occurs when the timer interval has elapsed?
    a. Tick   b. Start   c. Stop   d. Enabled
52. Which symbol is used to create a menu separator?
    a. -   b. _   c. =   d. &
53. Which property is used to set the current file name filter string?
    a. Filter   b. Filter Index   c. Default Ext   d. Add Extensions
54. Which property sets whether the print to file check box is checked?
    a. PrintToFile   b. Printer settings   c. AllowPrintToFile   d. ShowPrint
55. Which property gets the next visible node?
    a. IsVisible   b. IsSelected   c. IsExpanded   d. NextVisibleNode
56. Which method occurs when an item is checked?
    a. ItemCheck   b. ItemActivate   c. ColumnClick   d. SelectedIndex
57. Which style property displays a toggle button that toggles between up and down?
    a. Drop Down button   b. Push Button   c. Toggle button   d. Separate Button
58. Which property gets the collection of the status bar panels in a status bar?
    a. Panels   b. Show Panels   c. Parent   d. Panel Click
59. Which control displays a horizontal bar for the user to watch the progress?
    a. Track bar   b. Status bar   c. Progress bar   d. Tool bar

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60. Which property is set to change the color of the caption as the mouse moves over them?
   a. Hot Track   b. Image Index   c. Tooltip   d. Tab pages
61. Which object generates unique server control identifier?
   a. Controls   b. Control Style   c. Control Style Created   d. Client ID
62. Using which, the web server controls are positioned?
   a. CSS styles   b. CS styles   c. JS styles   d. CS styles
63. Which property is set for indicating whether validation is performed when the button is clicked?
   a. CSS Class   b. Command Name   c. Command Argument   d .Causes Validation
64. Which property is set to create a password control for textbox?
   a. TextMode   b. Password   c.Column   d. ReadOnly
65. What class is designed to store server controls to a web page at runtime?
   a. PlaceHolder   b.Literal   c. Label   d. Button
66. Which method binds the checkbox to the data source?
   a. Dispose   b. DataBind   c. ToString   d. Enabled
67. Which property sets the field of the data source that provides the value of each list item?
   a. Data Value Field   b. Data Source   c. Data Member   d. Data Text Field
68. Which property sets the distance between check box and the table cell that contains it?
   a. Cell Spacing   b. Cell Padding   c. Text Align   d. Repeat Layout
69. Which Property sets the name of the group that the radio button belongs to?
   a. Checked   b. AutoPostBack   c. GroupName   d. Text
70. Which class is used to control how the contents of a table row are displayed?
   a. Table   b. TableRow   c. TableCell   d. TableColumn
71. Which property is set for displaying text in the place of the image, if the image is not available?
   a. Image URL   b. Image Align   c. Alternate Text   d. Image Button
72. Which property value is set to multiple, for enabling multiple selections?
   a. Selection Mode   b. Selection Index   c. Selection Item   d. Rows
73. Which property sets the URL to navigate when the hyperlink is clicked?
   a. Image URL   b. Navigate URL   c. Target   d. Text
74. Which event occurs when the image button is clicked?
   a. OnClick   b. OnCommand   c. OnCommandName   d. OnCommandArgument
75. Which HTML server control class creates an HTML file upload control?
   a. HTML Input File   b. HTML Input Text   c. HTML Form   d. HTML Text Area
76. Which event occurs when the value property changes on the server?
   a. Server Change   b. Server Click   c. Server Clicked   d. Server Command
77. Which property sets the alternative text to display if an image cannot be displayed?
   a. ALT   b. SRC   c. Border   d. Align
78. Which property gives access to the uploaded file?
   a. Accept   b. Size   c. Posted File   d. Hidden File

79. Which displays the linked content in the immediate frameset parent?
   a. _Blank   b. _Parent   c. _Self   d. _Top
80. Which property sets whether check boxes are arranged vertically or horizontally?
   a. RepeatColumns   b. RepeatLayout   c. RepeatDirection   d. RepeatRows
81. Which property is used for adding properties to user controls?
   a. Property   b. Load   c. ActiveControl   d. Validate
82. Which method is used for initializing the user control?
   a. Initialize   b. Initiate   c. InitializeAsUser Control   d. Instantiation
83. Which property indicates if the thread has been started and is alive?
   a. Start   b. Alive   c. Suspend   d. IsAlive
84. Which method waits for the thread to die or for a specific timeout, given as a
    timespan object, to elapse?
   a. Sub Join   b. Function Join
   c. Function Join(timeout as integer) d. Function Join(timeout as timespan)
85. Which object is used to work with oracle database?
   a. SQL Connection   b. Oracle Connection
   c. OLEDB Connection   d. ORCL Connection
86. Which object holds a data table from a data source?
   a. Data Table   b. Data Relation   c. Data Row   d. Data Column
87. Which property is used to perform a simple binding?
   a. Data Bindings   b. Data Source   c. Data Member   d. Display Member
88. Which property of the datagrid object sets the list of data the datagrid should display?
   a. Current Row Index   b. Current Cell   c. Data Member   d. Data Source
89. Which property determines the cell that was selected by the user?
   a. Current Row Index   b. Current Cell   c. Data Member   d. Data Source
90. Which event occurs when the control is done validating?
   a. Validating   b. Validation   c. Validated   d. Causes Validation
91. Which property gets or sets the field name from a data source to bind to?
   a. Data Key Field b. Data Text Field c. Data Value   d. Data Text Format String
92. Which column type shows a button for each item in the column?
   a. Bound Column   b. Button Column
   c. Edit Command Column   d. Template Column
93. Which control creates simple, read-only output?
   a. Data Grid   b. Data List   c. Repeater   d. Adaptor
94. Which event occurs when a user clicks a button that doesn't have a predefined
    command?
   a. Edi Command   b. Update Command   c. Delete Command   d. Item Command
95. Which property gets the number of items for custom paging?
   a. Selected Item   b. SelectedIndex   c. SelectedItemStyle   d. VirtualItemCount
96. Which Priority thread has a highest priority?
   a. Below Normal   b. Normal   c. Highest   d. Above Normal
97. Which method is used to stop the thread?
   a. Stop( )   b. Abort( )   c. Resume( )   d. Suspend( )

98. Which is the primary data access and manipulation protocol?
    a. ADO.NET   b. ODBC   c. OLEDB   d. ADODC
99. Which object starts a connection with the database?
    a. Data Connection b. Data Adaptors c. Command   d. Constraint
100. Which object loads only a subset of a dataset?
    a. Data View   b. Data Grid   c. Data Table   d. Data Row

SECTION - B

1. Discuss about the System Namespace.

2. Write short note on the Intellisense feature of the VB.NET.

3. Discuss about Visual Basic Statements.

4. How the Variables are declared in VB.NET?

5. Difference between Arrays and Dynamic Arrays.

6. Discuss about String Handling functions and methods.

7. Difference between the Switch and Choose Function.

8. Different types of Scopes in VB.NET.

9. Discuss about the Unstructured Exception Handling.

10. Give a brief note on For Each….Next Loop.

11. Difference between Textbox and Richtextbox.

12. Discuss about Linklabels.

13. Write short notes on Buttons control.

14. Difference between Panels and Groupbox.

15. Briefly discuss about Picture box control.

16. How to create the Control Array in VB.NET?

17. List out the Mouse Events

18. List out some of the Keyboard Events.

19. Write short note Labels.

20. Give a brief note on MDI Form.

21. Write short note on Splitters.

22. Discuss about Trackbars.

23. Write short note on Notify Icons.

24. Discuss about Tooltip control.

25. Briefly discuss about Timer control.

26. How to create Submenus and Separators?

27. How to create MDI Window Menus?

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28. Give a brief note on Progress bar.

29. Discuss about the Tab control.

30. Write short note on Status bar.

31. How to set a Control style and Move the Controls?

32. How to set Control Fonts and Border Style?

33. How to create Command Buttons?

34. Discuss about Labels.

35. Write short note on Literal Class.

36. Discuss about List Control and list Item Class.

37. How to create Panels?

38. Give a brief note on Drop Down List.

39. Discuss about Hyperlinks.

40. Briefly discuss about HTML Form.

41. How to create User Control?

42. How to create Web Controls?

43. How to create Threads?

44. List out the most common ADO.NET Objects.

45. Discuss about the process of creating Dataset.

46. How to add records to a Dataset?

47. How Data Validation is performed?

48. How to create Data Views?

49. Discuss about the thread States

50. How to customize Data Grids?

SECTION - C

1. How to put a visual basic to work? Explain in detail.
2. Explain in detail about the .NET Framework and the Common Language Runtime.
3. How to build VB.NET applications? Explain in detail.
4. Explain in detail about any 4 types of servers.
5. Discuss about different types of Data types in detail.
6. Give a detailed note about visual basic .NET operators.
7. Discuss in detail about Decision making statements.
8. Explain in detail about Looping statements.
9. Illustrate in detail about the concepts of Subroutines.
10. Explain in detail about Functions in detail.
11. Illustrate in detail about Windows forms Methods, Events, Properties.
12. Discuss in detail about the RichTextBox.
13. Elaborate in detail about Check Boxes.
14. Explain in detail about Combo Boxes.
15. Explain in detail about List Boxes.
16. Discuss in detail about the Msg Box and Input Box with an example.
17. Illustrate about Textbox in detail
18. Discuss in detail about the Checked List Boxes.
19. Explain in detail about the Radio Buttons.
20. Difference between Radio Buttons and Check Boxes. Explain in detail.
21. Illustrate about Date Time Pickers in detail.
22. Explain in detail about Scroll Bars.
23. How to create Menus? Explain in detail.
24. How to create MDI Menus? Explain in detail.
25. Discuss about Dialog boxes in detail.
26. Discuss in detail about the Open, Save and Print dialog boxes.
27. Discuss in detail about List View.
28. Discuss in detail about Tree View.
29. Illustrate in detail about Image list
30. Explain in detail about Tool Bar.
31. Explain in detail about the Text Box.
32. Discuss about the Check Boxes in detail.
33. Illustrate in detail about Radio Buttons.

34. Explain in detail about Table Class.

35. Discuss about the Image Controls and Image Buttons.

36. Explain in detail about List Box.

37. Discuss about Hyperlinks and Link Button in detail.

38. Discuss in detail about the HTML Input Text and HTML Text Area.

39. Explain in detail about the HTML Table Class, Table Row and Table Cell.

40. Explain about the HTML Button, HTML Input Button, and HTML Input Button. Image.

41. How to create User control, add properties, methods, events ant Test them?

42. How to create Web User control, add properties, methods, events ant Test them?

43. Discuss about the concept of Starting, Stopping, Sleeping and Suspending the Threads.

44. How to access Data with the Server Explorer? Explain in detail.

45. How to access data with Data Adaptors and Data Sets? Explain in detail.

46. How to Navigate in Datasets? Explain in detail.

47. Discuss about Simple and Complex Binding in detail.

48. Discuss in detail about the concept Data Grid and how to bind Data Grids?

49. Discuss in detail about Database Access in Web Applications.

50. Explain in detail about the concept Data access with ADO.NET.

1. d	46. b	91. b
2. d	47. b	92. b
3. b	48. d	93. c
4. c	49. a	94. d
5. b	50. b	95. d
6. b	51. a	96. d
7. b	52. a	97. b
8. d	53. a	98. a
9. d	54. a	99. a
10. c	55. d	100. a
11. b	56. a	
12. a	57. c	
13. c	58. a	
14. d	59. c	
15. c	60. a	
16. a	61. d	
17. b	62. a	
18. c	63. d	
19. b	64. a	
20. c	65. a	
21. a	66. b	
22. a	67. a	
23. a	68. b	
24. c	69. c	
25. a	70. b	
26. b	71. c	
27. c	72. a	
28. a	73. b	
29. d	74. a	
30. a	75. a	
31. a	76. a	
32. b	77. a	
33. d	78. c	
34. d	79. b	
35. a	80. c	
36. c	81. a	
37. a	82. c	
38. a	83. d	
39. b	84. d	
40. c	85. b	
41. a	86. a	
42. a	87. a	
43. d	88. c	
44. a	89. b	
45. a	90. c	