

M.Sc., Biochemistry

S.No	Subject code	Title of the paper	Changes made
1.	25PBC101	Core Paper 1 – Biomolecules and Biopolymers	Unit I- shifted Water: Water and its physicochemical properties, Ionization of water, pH scale, Henderson-Hasselbalch equation from Unit II to Unit I. Interchange the words occurrence, properties to distribution. Unit II: Interchange of the topic Water from Unit II to Unit I
2.	25PBC102	Core Paper 2 – Bio analytical techniques	Unit I-Removed the word Electrophoresis technique. Included the word technique and application. Removed application of electrophoresis in analysing macromolecules. Unit II: Removed the word hydrophobic interaction
3.	25PBC103	Core Paper 3 – Enzymes and Enzyme technology	Unit I: Removed the heading classification, purification and active site , replaced the word enzymes Unit V- Included the specific enzymes like Lactase, amylase, protease and pectinase Papain, trypsin and alkaline protease
4.	25PBC104	Core Paper 4 – Cellular Biochemistry	Unit I -Included the term membrane carbohydrates and membrane lipids Unit III- Added cell adhesion molecules, Added gap junction and neurotransmitters
5.	25PBC1CL	Core Practical I: Lab in Biomolecules, Bioinstrumentation, Enzymology and cell biology	Replaced the Estimation of Ascorbic acid with Estimation of Lactose in milk
6.	25PBC205	Core Paper 5–Plant Biochemistry	Unit V-Added new topic plant toxins and their mechanisms

			Unit IV and V has been interchanged Unit IV title has been changed as plant transformation techniques.
7.	25PBC206	Core Paper 6 – Metabolism and Metabolic Regulation	Unit II: Remove the term Aerobic and Fermentation Unit V: Replace the heading of Nucleotide to Nucleic acid
8.	25PBC207	Core Paper 7 – Molecular Biology	Added central dogma of life in unit III.
9.	25PBC208	Core Paper 8– Drug Biochemistry	Unit V: Remove the word hypersensitivity
10.	25PBC2CM	Core Practical 2 – Lab in plant biochemistry, microbiology and molecular biology.	Change the title of the paper from L a b i n Plant Biochemistry, Genetics and Molecular Biology to Lab in Plant Biochemistry, Microbiology and Molecular Biology Exp 10: Included the term separation using. Exp 12: remove the extraction of total RNA Exp 15: Replace the term blotting techniques to Western blotting (demo)
11.	25PBC309	Core Paper 9 – Advanced Immunology and immunological techniques	Change the title of the paper from Advanced Immunology and immunological techniques to immunology and immunological techniques Added mRNA vaccines, vector vaccines, and biomaterial-based vaccines in unit V Added western blot, FCS in unit V
12.	25PBC310	Core Paper 10 – Biostatistics and research methodology	Interchange the title from Biostatistics and research methodology to Research methodology and Biostatistics. Unit IV:Included chi-square test, mean deviation, standard deviation, Coefficient of variation. Unit V: included the topic funding agencies
13.	25PBC311	Core Paper11– Advanced Clinical	Unit IV: Removed the topic Estimation of GFR and cystatin C in serum.

		Biochemistry	Unit V: included the topic DPPH, ABTS, NO and ferric oxide
14.	25PBC412	Core Paper 12 – Hormonal Biochemistry	Unit III: Included Parathyroid hormone in the sub title
15.	25PBC413	Core Paper 13. Genetic Engineering	Unit IV: included the topic OMICS and Next Gen sequencing.
16.	25PBC1E1	Major Elective: Microbiology	Changed the Title from Microbiology to Microbial Technology
17.	25PBC3N1	Non Major Elective – Cancer Biology	Unit V: Changed the subtitle from Local treatment of cancer to causes of cancer
18.	25PBC1E1	Major Elective:	Introduced two new papers namely Environmental management and Biopharmaceuticals.
19.		Certificate Course	Introduced two new certificate course namely Certificate course on medical laboratory technology and Certificate course on Baking science and technology .

Justification for introducing certificate course

CMLT: CMLT courses are specialized programs that train students to become proficient in the laboratory aspects of healthcare. Medical Laboratory Technician courses cover a broad spectrum of subjects especially biochemistry. Students gain hands-on experience with sophisticated lab equipment, learning to perform tests that are critical for diagnosing and monitoring diseases. The Medical Laboratory Technician course offers several specializations, each focusing on different aspects of laboratory science. These specializations in Medical Laboratory Technician courses allow professionals to develop expertise in specific areas of medical laboratory science, contributing to accurate diagnoses and effective patient care.

Baking science and technology: It is skill development course where skae holders need to know the facts on Teaching baking science and technology to students is essential because it fosters critical thinking, problem-solving, enterprenurship development and practical skills, while also providing a fun and engaging way to learn about to explore the world of foods and flavor. Students can learn and earn part time by knoing the scientific facts while they bake.

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