

BS
MLT

Jan-2023

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Medical Laboratory Technology

[Time: 3 Hours]

[Max. Marks: 80]

IV SEMESTER

PAPER I - (Fundamentals of Biochemistry II)

QP CODE: 8430

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Define a balanced diet? Describe the causes and features of protein-calorie malnutrition.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Hazards of radioactivity.
3. Bicarbonate buffer system of blood.
4. Explain the Concept of molecular wt , Eq. wt , Normality and Molarity.
5. Explain the functions of the body's normal pH
6. Which are the factors to be considered while collecting blood samples for biochemistry tests?
7. What are the reasons for rejecting the blood samples by the Biochemistry laboratory?
8. What are the instructions to be given to patients before Biochemistry laboratory tests
9. Define the PCR technique and its uses.
10. Compare marasmus and Kwashiorkor.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Types of Radioactivity.
12. What are the Acid-Base abnormalities occurring clinically?
13. Mention Normal ranges for pCO₂, pO₂, and HCO₃.
14. Explain how a 1 Lt of 5 % NaCl solution is prepared?
15. Factors responsible for maintaining quality control in the clinical laboratory.
16. Define MUFA, PUFA and SFA.
17. Which anti-coagulant is used to collect the blood for glucose estimation and why?
18. Why the patient's FIO₂ information is required during ABG analysis?
19. Define Henderson- Hasselbalch's equation.
20. Which formula is used to calculate the BMI and brief its importance?
21. Difference between external and internal quality control.

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PAPER II - (Fundamentals of Microbiology - II)

QP CODE: 8431

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Describe Laboratory diagnosis of Urinary Tract Infection caused by Each. Coli.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Laboratory diagnosis of infection caused by Staphylococcus aureus.
3. Tuberculin test.
4. Lab Diagnosis of Diphtheria
5. Serological Laboratory diagnosis of HIV infection
6. Tissue Culture
7. Laboratory diagnosis of Dengue
8. Widal test
9. Laboratory Diagnosis of Cholera
10. Laboratory diagnosis of Anthrax

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Morphology of Pneumococci
12. Enumerate three spores forming bailli
13. Pigment produced by Pseudomonas aeruginosa
14. Difference between VDRL and RPR
15. Classify hepatitis viruses
16. Three RNA Viruses
17. Enumerate six anaerobic bacteria
18. Classification of Streptococci
19. Enumerate three infections caused by Klebsiella
20. OPV
21. Pathogenesis and Lab diagnosis of gonorrhoea

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IV SEMESTER

PAPER III - (Haematology & Clinical Pathology II)

QP CODE: 8432

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Describe specimen collection, preservation and physical examination of urine

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Decalcification
3. Universal safety precautions
4. Coagulation profile
5. Processing of CSF
6. Cross matching
7. H & E staining
8. Bleeding time
9. Iron deficiency anemia
10. Automated tissue processor

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Methods of blood grouping
12. Types of microtomes
13. Name three stains commonly used in cytology
14. Enlist RBC indices
15. Parts of microscope
16. Name three clearing agents
17. Types of leukemia
18. Write three causes of pleural effusion
19. Advantages of paraffin wax
20. What is FNAC? Write two uses of it.
21. Name three investigations done in thalassemia