

June-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. What are Isotopes? Explain in detail their applications in Medicine.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Role of the kidney in the regulation of blood pH
3. Write a note on protein energy malnutrition.
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 precautions should be taken while sending blood samples for ABG analysis?
8. What are the reasons for rejecting the blood samples by the Biochemistry laboratory?
9. What are the instructions to be given to patients before Biochemistry laboratory tests?
10. Define the PCR technique and its uses.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Explain the Alkali reserve.
12. Kwashiorkor
13. What are the Acid-Base abnormalities occurring clinically?
14. Mention Normal ranges for pCO₂, pO₂, and HCO₃.
15. Explain how a 2 Lt of 4 % KOH solution is prepared?
16. Factors responsible for maintaining quality control in the clinical laboratory.
17. Define SFA, MAFA and PUFA.
18. What is the difference between Serum and Plasma?
19. Clinical importance of 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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B.Sc. (MLT) ALLIED HEALTH SCIENCES

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IV SEMESTER

PAPER II (Fundamentals of Microbiology)

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. Classify Mycobacteria. Discuss Laboratory diagnosis of pulmonary tuberculosis.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Lab Diagnosis of Diphtheria
3. Pathogenesis and Lab diagnosis of gonorrhoea
4. Laboratory diagnosis of diarrhoea caused by Esch. coli
5. Morphology of viruses
6. Laboratory diagnosis of infection caused by Hepatitis B virus
7. Laboratory diagnosis of Dengue
8. Laboratory diagnosis infection caused by Streptococci.
9. Laboratory Diagnosis of Enteric fever
10. Explain transport and selective media for vibrio cholerae

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Diene's phenomenon
12. Enumerate six Gram negative bacilli
13. Kass concept
14. Pigment produced by Pseudomonas aeruginosa
15. Enumerate test for Lab. diagnosis of syphilis
16. Enumerate Cytopathic effect of viruses
17. Three DNA Viruses
18. Enumerate six anaerobic bacteria
19. Enumerate six opportunistic infections associated with HIV infection
20. Coagulase test
21. Enumerate three infections caused by Klebsiella

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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. Discuss etiology, bone marrow examination of megaloblastic anemia and add a note on investigations

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Write about Reticulocyte stain, its uses and normal range
3. Write in detail in Changes in RBC indices in Iron deficiency anemia
4. Sickle cell anemia
5. Define thrombocytosis. Write its causes
6. Mention anticoagulants used in laboratory and its uses?
7. What is the normal total leucocyte count and mention the composition of WBC diluting fluid?
8. Write a note on Biomedical waste management in laboratory
9. Erythrocyte sedimentation rate (ESR) - Write conditions were raised?
10. Write the classification and clinical features of haemolytic anemia

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. What is buffy coat? Mention its importance
12. Write briefly about sputum examination
13. Indications of lumbar puncture
14. Normal bleeding and clotting time
15. Mention 3 indications of bone marrow
16. Name blood indices
17. Peripheral study of microcytic hypochromic anemia with diagram & labels
18. Haemoparasites
19. Lab diagnosis of multiple myeloma
20. Normal Specific gravity of urine and conditions it is increased
21. What do you mean by absolute eosinophil count? - Normal range