

11/2/26
207

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. Medical Laboratory Technology

[Time: 3 Hours]

[Max. Marks: 80]

III SEMESTER

PAPER - I (Fundamentals of Biochemistry I)

QP CODE: 8330

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Define Jaundice. Enumerate the cause for it. Explain different types of Jaundice and add a note on blood investigations for diagnosis of different types of Jaundice. [1+2+3+4]

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Aerobic glycolysis & add a note on its energetics
3. Role & responsibilities of a medical lab technologists
4. Write a note on segregation and disposal of biomedical waste
5. Principle and application of Colorimeter
6. Write a note on analytical errors & pre-analytical errors
7. Digestion & absorption of carbohydrates
8. Structure and types of Hb. Add a note on HbA_{1C}.
9. Laboratory hazards and first aid in clinical laboratory.
10. Lab safety regulation and first aid in clinical laboratory

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Heme containing proteins
12. Explain the procedure of sample collection for ABG analysis
13. Define : a) Mol. wt b) Eq. wt
14. Name the organic and inorganic constituents of urine.
15. Applications of hot air oven
16. What is full form of ABG? Mention normal range for pH, pCO₂, pO₂
17. Name the anticoagulant required for blood glucose estimation? Why?
18. Beer- Lamberts Law
19. How will you prepare 50 ml of 2 mg/dl of creatinine standard (working solution) from 100mg/dl of creatinine stock solution?
20. Define : a) Glycogenesis b) Glycogenolysis
21. Significance of HMP shunt

31/2/26
ATD

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. Medical Laboratory Technology

[Time: 3 Hours]

[Max. Marks: 80]

III SEMESTER

PAPER - II (Fundamentals of Microbiology I)

QP CODE: 8331

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Define sterilization. Classify various agents of sterilization. Write in detail about Hot air oven

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Koch's postulate
3. Morphology of Bacteria
4. Enriched media
5. OT sterilization
6. Hospital acquired infection
7. Explain Innate Immunity
8. Agglutination tests
9. Antimicrobial susceptibility testing
10. Gram's Stain

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Joseph Lister
12. Enumerate three Gram positive bacilli
13. Enumerate spore bearing bacteria
14. Enumerate three Anaerobes
15. Draw labeled diagram of IgM
16. Uses of ELISA test
17. Material sterilized by Autoclave
18. Enumerate antiseptics
19. Enumerate three Transport media
20. Types of Vaccine
21. Enumerate methods for demonstration of flagella

4/8/26
AM

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. Medical Laboratory Technology

[Time: 3 Hours]

[Max. Marks: 80]

III SEMESTER

PAPER - III (Haematology & clinical pathology I)

QP CODE: 8332

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain in detail the principle, procedure and interpretation of any one chemical tests each for examining sugar, proteins, ketone bodies, bile pigments and blood in urine.(2+2+2+2+2)

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Define anemia. Explain the morphological classification of anemia with a neat, labelled diagram for each. Write two causes for each type.
3. What are Romanowsky stains? Describe the procedure of preparation of Leishman stain.
4. Explain the steps of normal hemostasis. Enlist four bleeding disorders.
5. Procedure of any two stains used in cytology.
6. Biomedical waste management- color coding and waste segregation.
7. Megaloblastic anemia – Causes, CBC and peripheral smear findings.
8. Discuss about anticoagulants in hematology with mechanism of action and uses.
9. Describe the types and procedure of blood grouping.
10. Quality control in hematology.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Universal safety precautions
12. Normal platelet count in an adult. Two causes each for increase and decrease in platelet count.
13. Three causes of glycosuria.
14. Stages of erythropoiesis.
15. Three causes of leukocytosis.
16. Three methods of hemoglobin estimation.
17. Name three parasites seen in blood.
18. Three sites of bone marrow aspiration.
19. Three types of cellular casts seen in urine and causes for each.
20. Different types of WBCs with neat, labelled diagram.
21. Composition of WBC diluting fluid.