

7/24

# BLDE (DEEMED TO BE UNIVERSITY)

## B.Sc. Medical Laboratory Technology

[Time: 3 Hours]

[Max. Marks: 80]

### VI SEMESTER

### PAPER - I (Clinical Biochemistry II)

QP CODE: 8630

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

#### Long Questions

10X1 = 10 Marks

1. Describe in detail how blood glucose is regulated in the body. Add a note on Diabetes mellitus and complications caused by it [3+4+3].

#### Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Write about the significance of gluconeogenesis.
3. Write biochemical symptoms and enzyme defects in the following  
a) Galactosemia, b) Hereditary fructose intolerance
4. Define PPE. List all the proper PPE one must wear while working in the lab.
5. Define recombinant DNA technology. Write about its application.
6. Write a note on Blotting techniques.
7. Discuss absorption, functions, and deficiency symptoms of calcium.
8. Write the functions of phosphate
9. Explain RFT regarding its clinical utility and normal ranges of tests done under RFT.
10. Write a note on tumor markers.

#### Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Write a note on Thyroid function tests with their normal ranges.
12. Clinical significance of A/G ratio.
13. Difference between Urea and BUN.
14. How the creatinine clearance is measured? Mention its normal range.
15. Importance of ABG analyzer.
16. What are the four ways chemicals can enter the body while working in the laboratory?
17. Describe NABH? Explain its objectives.
18. Normal ranges for serum calcium and phosphorus.
19. What is ELISA? Write a note on its uses.
20. What is meant by the true glucose value of blood?
21. What is the procedure when dealing with broken glassware?

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**VI SEMESTER**

**PAPER - II (Medical Microbiology II)**

**QP CODE: 8631**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

**Long Questions**

**10X1 = 10 Marks**

1. Enumerate Molecular methods used for laboratory diagnosis infection. Mention application, advantages and disadvantages of it. Write in detail about PCR techniques

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Laboratory diagnosis of Amoebic dysentery
3. Giardiasis
4. Laboratory diagnosis of Malaria
5. Write difference between *Taenia saginata* and *Taenia solium*
6. Pathogenesis and Laboratory diagnosis of hook worm infection
7. Sample collection and transport for viral respiratory infection for molecular diagnosis.
8. General guideline for sample collection and transport for infectious diseases
9. Standard precaution
10. Role of automation in microbiology laboratory

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Sources of parasitic infection
12. Name three free living amoebae
13. Draw labeled diagram of Ova of *Enterobius vermicularis*
14. Name three Bile-stained Eggs
15. Name three Tissue nematodes
16. Enumerate three vector borne parasitic infection
17. Steps of donning
18. Five movements of hand hygiene
19. Triple packaging system
20. Six Organism causing UTI
21. Six Organism causing CNS infections

6/7/2024

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**B.Sc. Medical Laboratory Technology**

[Time: 3 Hours]

[Max. Marks: 80]

**VI SEMESTER**

**PAPER - III (Blood Bank & General Pathology II)**

**QP CODE: 8632**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

**Long Questions**

**10X1 = 10 Marks**

1. Write in detail about biomedical waste management in laboratory. Write the steps of managing spillage of blood and body fluids.

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Classify hemolytic anemia. Enlist the tests in hemolytic profile.
3. Chemical examination of urine
4. What are Romanowsky stains? Write few examples of Romanosky stains. Write their applications.
5. Investigations for hemorrhagic disorders
6. What is electrophoresis? Write about its types and uses.
7. Causes and investigations for microcytic hypochromic anemia
8. Discuss the process of blood collection, testing, storage, and distribution
9. Cross matching
10. APTT- Principle, procedure and normal range

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Mention the registers maintained in Blood center.
12. Color coding of vacutainers
13. Supravital stain
14. What are T T Ds? Enlist them.
15. Criteria for selection of donor.
16. Preparation of blood components.
17. Peripheral smear preparation and staining
18. Name Haemoparasites and special tests for their identification.
19. Write briefly about sputum examination
20. Test for Sickling
21. Schilling Test