

BSc. MLT. March, 2025.  
**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. Define Diabetes mellitus. Classify. Discuss the complications of DM. Describe the biochemical tests used to identify and diagnose DM [2+4+4].

**Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Write the significance of gluconeogenesis.
3. Write the role of the liver in blood glucose level maintenance.
4. Write about factors affecting calcium absorption.
5. Write a note on Thyroid function tests with their normal ranges.
6. How should one react to a fire in the working lab? What safety precautions need to be followed?
7. Define PPE and list all the proper PPE one must wear while working in the lab.
8. What is NABH? Discuss the importance of its objectives.
9. Functions of phosphorus in the body.
10. Write a note on blotting techniques.

**Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. What is Galactosemia?
12. Explain fructose intolerance.
13. Normal ranges for serum calcium and phosphorus.
14. What is meant by the true glucose value of blood?
15. Renal function tests.
16. What is ELISA? Write a note on its uses.
17. Which biochemical tests are routinely measured during CSF analysis? Mention their normal ranges.
18. Clinical significance of A/G ratio.
19. Which tumor markers are used as the screening test for cancer? Mention their normal ranges.
20. What is the clinical significance of  $\beta$ -hCG.
21. What is CEA test? Mention its clinical significance.

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## **B.Sc. in Medical Laboratory Technology**

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### **VI SEMESTER**

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

**QP CODE: 8631**

#### **Long Questions**

**10X1= 10 Marks**

1. Classify hepatitis viruses. Describe the Laboratory diagnosis of infection caused by Hepatitis B virus.

#### **Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Laboratory diagnosis of Dengue
3. Cultivation of viruses
4. Laboratory diagnosis of rabies
5. PCR
6. Universal precautions
7. Quality control in microbiology
8. Laboratory diagnosis of HIV infection
9. Automation in microbiology
10. Occupational hazards

#### **Short Answers: (Any – 10)**

**3 X 10= 30 Marks**

11. ELISA
12. Name the viruses causing diarrhea
13. Enumerate three DNA viruses
14. MMR Vaccine
15. Enumerate the opportunistic infections
16. Enumerate the arboviruses
17. Enumerate Antiviral agents
18. Name the viruses causing respiratory tract infections
19. Enumerate the molecular diagnostic methods
20. Enumerate the viral zoonotic disease
21. Name the viruses causing CNS infections

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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. Name the equipments used in blood center. Write in detail about equipment maintenance to ensure accuracy and safety.

#### **Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Quality control of blood components
3. Coagulation profile
4. What is HPLC? Write its principle and uses.
5. Investigations done in hemolytic anemia.
6. Indirect Coomb's test
7. Automation in Hematology and its principle
8. Liver function tests
9. Osmotic fragility test – principle and procedure
10. Physical examinations of urine

#### **Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. What is apheresis? Write two uses.
12. Whole blood bag - storage and shelf life
13. Sickling test
14. What is Z-N stain? Write its use.
15. Test for chyluria
16. Normal range of RBC indices.
17. Name three blood components with one use of each.
18. Classify blood transfusion reactions.
19. Mention 3 stains used for reticulocyte staining.
20. Name three preservatives for urine sample.
21. Examination of donor before blood donation