

BSc
MLT-IV

JAN-2024

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. 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 pH. What is normal pH of blood? Add a note on plasma buffers and Acid base disorders
[1+ 1+4+4]

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Define oxidative phosphorylation. Explain Chemiosmotic theory (1+4).
3. What is uremia? Add a note on urea cycle disorders.
4. What is PCR? Explain the technique.
5. Differentiate Kwashiorkor and Marasmus
6. What is detoxification? List various detoxification reactions. Explain any one reaction in detail.(1+3+2)
7. Explain Internal & External Quality Control
8. Write a note on Deamination & Transamination (2+3)
9. Define radioactive isotopes. Add a note on diagnostic importance of radioisotopes.
10. Digestion and absorption of proteins.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. What is codon? Describe salient features of genetic code.
12. Anion gap
13. Define Essential amino acids with examples
14. Name the electrolytes and Reference values for it.
15. Net protein utilization (NPU)
16. Replication.
17. Nitrogen balance
18. Nutritional significance of ω -3 Fatty acids and PUFA
19. Name the Dietary fibers and write the importance.
20. How will you maintain the records in clinical Biochemistry lab?
21. Name the complexes of electron transport chain.

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IV SEMESTER

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 Esch. coli

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Lab Diagnosis of gonorrhoea
3. Weil –felix test
4. MRSA
5. Lab Diagnosis of Tuberculosis.
6. Laboratory Diagnosis of diphtheria.
7. Hospital Acquired Infection
8. Laboratory Diagnosis of enteric fever
9. Biomedical waste management
10. Difference between VDRL and RPR

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Enumerate the Acid fast bacilli
12. Classification of Streptococci
13. Enumerate three Gram negative cocci
14. Enumerate three each Transport and selective media for vibrio cholerae
15. Enumerate six anaerobic bacteria
16. Enumerate three spores forming bacilli.
17. Morphology of Pneumococci
18. Enumerate infections caused by Staphylococci
19. Enumerate Zoonotic diseases
20. Infections produced by Pseudomonas aeruginosa
21. Universal precautions

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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 the collection, handling of specimen, processing and interpretation of Semen.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Fixatives in histopathology
3. Steps of major cross matching
4. Clotting time – principle, procedure and normal range.
5. Differences between transudate and exudate
6. Categories of biomedical waste
7. Cytocentrifugation
8. Dipstick test for urine- principle and interpretation of different parameters
9. Iron deficiency anemia – causes and laboratory investigations
10. Criteria for selection of blood donor.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Contents of CPDA
12. Name three hemolytic anemias.
13. What is FNAC? Write two uses of it.
14. Name three anticoagulants used in vacutainers with their color coding.
15. Name three clearing agents.
16. List RBC indices. Write the normal range for each.
17. Name ketone bodies. Write two causes of ketonuria.
18. Draw a diagram of improved Neubauer's chamber.
19. Enlist types of leukemia
20. Write three advantages of liquid-based cytology
21. Procedure of Leishman staining