

QP Code:

Reg. No.....

**Third Year B.Sc Medical Biochemistry Degree Examination
October 2017**

**Paper IX - METABOLISM II
(Model Question Paper)**

Time: 3 hrs

Max Marks: 80

- Answer all Questions
- Draw diagrams wherever necessary

Essays

(2x15=30)

1. Give an account of chemistry, sources, RDA, function and deficiency symptoms of vitamin D
2. Explain the mechanism of action of hormones. Add a note on second messengers.

Short Essays

(2x10=20)

3. Define BMR. What are the factors affecting BMR
4. Explain the metabolism of sodium and potassium. Explain their deficiency disorders.

Short Answers

(4x5=20)

5. Folic acid
6. PEM
7. Catecholamines
8. Porphyrias

Comment on

(5x2=10)

9. Hormone receptors
10. Jaundice
11. Scurvy
12. Insulin
13. Pellagra

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**Paper X - Clinical Biochemistry
(Model Question Paper)**

Time: 3 hrs

Max Marks: 80

- Answer all Questions
- Draw diagrams wherever necessary

Essays

(2x15=30)

1. What are plasma proteins. Explain their functions and clinical significance
2. What is the normal blood pH. How is it regulated. Add a note on acid base balance.

Short Essays

(2x10=20)

3. Blood glucose regulation
4. Metabolism of xenobiotics

Short Answers

(4x5=20)

5. TDM
6. Theories of ageing
7. Diabetes mellitus
8. Blood buffers

Comment on

(5x2=10)

9. Hypokalemia
10. Glycated hemoglobin
11. Fatty liver
12. Osmolality
13. Micro albuminuria

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**Paper XI- METABOLISM III
(Model Question Paper)**

Time: 3 hrs

Max Marks: 80

- Answer all Questions
- Draw diagrams wherever necessary

Essays

(2x15=30)

1. Describe in detail steps, enzymes and inborn errors associated with purine metabolism. Add a note on its regulation
2. Describe in detail steps involved in translation. Add a note on the post translational modifications and inhibitors of protein synthesis.

Short Essays

(2x10=20)

3. Describe in detail steps, enzymes and inborn errors associated with pyrimidine metabolism.
4. DNA replication

Short Answers

(4x5=20)

5. Mutation
6. DNA repair
7. PCR
8. Restriction endonuclease

Comment on

(5x2=10)

9. Southern blotting
10. RNA polymerase
11. Orotic acidurias
12. Operon
13. Gene therapy
