

M.Sc. IN MEDICAL COURSE – FINAL YEAR EXAMINATION

[Time : 3 Hours]

[Max.Marks : 100]

SUBJECT : BIOCHEMISTRY - PAPER - I  
QP CODE : 9031

Your answer should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

Each answer should be written on new page only.

Write Question No. in left side of margin.

**Long Essay: (Answers to be started on fresh page only)**

**6 x 10 = 60 marks**

1. Define and classify Carbohydrates. Explain in detail about Heteropolysaccharides
2. Define glycoprotein. Give examples. Mention their functions.
3. Describe the process of Beta-oxidation of Fatty Acids. Add a note on the energetics of the pathway.
4. Describe in detail the sources, RDA, functions and deficiency manifestations of Vitamin-D.
5. Describe the Metabolic pathways of Tryptophan. Write briefly on biochemical role of serotonin.
6. Classify Enzymes with suitable examples. Write briefly on mechanism of action of enzymes.

**Short Essay: (Answers to be started on fresh page only)**

**8 x 5 = 40 marks**

7. Protein-Energy Malnutrition.
8. Vitamin-C.
9. Glycosuria.
10. Give an outline of Electron Transport Chain, including ATP generation sites.
11. Regulation of enzyme activity
12. Total parental nutrition
13. Describe briefly the Hormonal Regulation of Blood Glucose Level.
14. Amino acid pool

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[Time : 3 Hours]

[Max.Marks : 100]

SUBJECT : BIOCHEMISTRY - PAPER - II

QP CODE : 9032

Your answer should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

Each answer should be written on new page only.

Write Question No. in left side of margin.

**Long Essay: (Answers to be started on fresh page only)**

**6 x 10 = 60 marks**

1. Describe the principle and applications of Radio Immuno Assay.
2. Give an account of daily requirement, absorption, transport, Biochemical functions and clinical abnormalities of Iron.
3. Neurotransmitters.
4. Biochemical markers of bone turnover
5. Describe in brief on synthesis of heme and add a note on regulation
6. Write about the principle, applications and functioning of Flame Photometer.

**Short Essay: (Answers to be started on fresh page only)**

**8 x 5 = 40 marks**

7. Biosensors
8. Ion selective electrode
9. Anion gap
10. Buffer systems
11. Fate of bilirabin
12. Tumour markers
13. Insulin receptors
14. Muscle contraction

M.Sc. IN MEDICAL COURSE – FINAL YEAR EXAMINATION

[Max.Marks : 100]

[Time : 3 Hours]

SUBJECT : BIOCHEMISTRY - PAPER - III  
QP CODE : 9033

Your answer should be specific to the questions asked.  
Draw neat labeled diagrams wherever necessary.  
Each answer should be written on new page only.  
Write Question No. in left side of margin.

**Long Essay: (Answers to be started on fresh page only)**

**6 x 10 = 60 marks**

1. Describe the different types of transport mechanism across cell membrane.
2. Describe the mechanism and mediators of native immunity.
3. Describe the method of plotting Levey-Jennings chart. Mention its applications.
4. Give an account of Radio Active Isotopes and explain the uses of Isotopes in Medicine.
5. Describe in detail the functional and therapeutic roles of Prostaglandins.
6. Subcellar fractionation and marker enzymes

**Short Essay: (Answers to be started on fresh page only)**

**8 x 5 = 40 marks**

7. Blotting Techniques with examples.
8. Gene therapy
9. Active Transport.
10. RFLP
11. Pre-analytical variables.
12. Autoimmunity
13. Anti-oxidants.
14. AIDS