

General Human Physiology and Biochemistry

Time: 3 Hours

Max Marks: 100

- Answer all questions
- Draw diagrams wherever necessary
- Write **SECTION A** and **SECTION B** in separate Answer books(32 Pages).
Do not mix up questions from Section A and Section B.

QP CODE:102002

Section A - PHYSIOLOGY

Marks: 50

Essay

(14)

1. Define blood pressure and mention the normal value. Describe the short term regulation of blood pressure. Add a note on hypertension (2+2+8+2=14)

Short essays

(2x8=16)

2. Acidification of urine.
3. Intrinsic mechanism of coagulation

Short notes

(5x4=20)

4. Artificial respiration
5. Functions of thalamus
6. Cretinism
7. Pathway of taste
8. Stages of deglutition

QP CODE:103002

Section B - BIOCHEMISTRY

Marks: 50

Essay

(14)

1. Outline the major steps of beta oxidation of fatty acid (palmitic acid). Explain in detail the different steps of this pathway. Calculate the ATPs formed when one molecule of palmitic acid is completely oxidized by this pathway. (3+8+3=14)

Short essays

(2x8=16)

2. Enlist the aromatic amino acids. Mention the important products formed from aromatic amino acids. Add a note on any one disorder of aromatic amino acid metabolism.
3. What is glycogenesis and explain about the steps of glycogenesis. Add a note on regulation of glycogenesis.

Short notes

(5x4=20)

4. Mention the plasma proteins and its four important functions.
5. Mention examples of hemoglobinopathies with basic defects and manifestations.
6. Any two tests to assess the functions of kidney and its significance.
7. Mention the biological functions and deficiency manifestations of vitamin C.
8. Outline the steps of DNA replication. Mention examples of antibiotics interfering in replication.
