

## 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 cardiac output and cardiac index and mention their normal values. Explain the factors influencing cardiac output. (2+2+10=14)

#### Short essays

(2x8=16)

2. Explain the stages of erythropoiesis and list any four factors influencing it.
3. Discuss the physiological actions of thyroxine.

#### Short notes

(5x4=20)

4. Describe the structure and functions of juxtaglomerular apparatus.
5. List the movements of small intestine and explain the functions of small intestine.
6. Discuss the hormonal changes during different phases of menstrual cycle.
7. Active transport mechanisms.
8. Classify hypoxia and explain any one of them

QP CODE:103002

### Section B - BIOCHEMISTRY

Marks: 50

#### Essay

(14)

1. Enumerate the synthesis, functions, RDA, sources and deficiency manifestations of vitamin D (3+5+1+1+4=14)

#### Short essays

(2x8=16)

2. List the classification of enzymes with examples
3. Mention the liver function tests and its significance

#### Short notes

(5x4=20)

4. Blood buffers
5. Absorption of iron
6. Protein energy malnutrition
7. Classification of lipids
8. Significance of HMP shunt pathway

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