

**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. Explain the intrinsic & extrinsic mechanism of blood coagulation and mention any two anticoagulants. Describe the mechanism of action of any one of them. (6+4+2+2=14)

Short essays**(2x8=16)**

2. Enumerate the different phases of cardiac cycle. Explain the various events occurring during the different phases of cardiac cycle.
3. Describe the molecular basis of skeletal muscle contraction.

Short notes**(5x4=20)**

4. Mention the causes and clinical features of acromegaly.
5. Discuss the intra pleural and intra pulmonary changes during different phases of respiration.
6. List the phases of deglutition. Explain the changes during second phase.
7. Discuss the formation and functions of cerebrospinal fluid.
8. Name the errors of refraction. Explain the defect and the correction for any one of them.

QP CODE:103002**Section B - BIOCHEMISTRY****Marks: 50****Essay****(14)**

1. Mention the reference value for plasma glucose in fasting and two hours post prandial state. List the hormones released in fasting and fed state. Explain in detail blood glucose maintenance in the fed state (2+3+9=14)

Short essays**(2x8=16)**

2. Describe the renal regulation of blood pH
3. Classify jaundice and mention the laboratory findings for each category

Short notes**(5x4=20)**

4. Synthesis of ketone bodies
5. Role of substrate concentration on enzyme activity
6. Plasma calcium
7. Gout
8. Kidney function tests
