

**First Year BDS Degree Supplementary Examinations September 2021**

**General Human Physiology and Biochemistry**

**(2016 Scheme)**

**Time: 3 Hours**

**Max Marks: 70**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *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: 112002**

**Section A - Physiology**

**Marks: 35**

**Essay:**

**(10)**

1. Mention the normal fasting blood glucose level. Explain the role of insulin in maintaining glucose homeostasis. Mention the clinical features of diabetes mellitus. (1+6+3)

**Short Notes:**

**(2x5=10)**

2. Describe the steps involved in transmission of impulses across neuromuscular junction in skeletal muscle with a flow chart.
3. Draw a neat labelled diagram of lead II electrocardiogram. Mention the underlying electrical activity for genesis of different waves.

**Brief Notes:**

**(5x3=15)**

4. Timed vital capacity
5. Three functions of plasma proteins
6. Presbyopia and its correction.
7. Thermoregulatory responses while body is exposed to cold environment.
8. Define reflex and draw a labelled diagram of reflex arc.

**QP CODE:113002**

**Section B - Biochemistry**

**Marks: 35**

**Essay:**

**(10)**

1. Describe the substrates, organs involved and steps of gluconeogenesis. (3+7)

**Short Notes:**

**(2x5=10)**

2. Describe competitive inhibition of enzymes citing examples
3. Give an account of HDL metabolism

**Brief Notes:**

**(5x3=15)**

4. List the causes of hyperuricemia
5. Functions of iron
6. Functions of vitamin K
7. Lactose intolerance
8. Compounds derived from glycine