

**First Year BDS Degree Examinations July 2019**

**General Human Physiology and Biochemistry**

**(2016 Scheme)**

**Time: 3 Hours**

**Max Marks: 70**

- 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: 112002**

**Section A - Physiology**

**Marks: 35**

**Essay:**

**(10)**

1. Define cardiac output and describe factors regulating cardiac output. Define stroke volume. Write its normal value (2+6+2)

**Short Notes:**

**(2x5=10)**

2. Draw and label the pathway for pain from face. Describe briefly on referred pain. (3+2)
3. Describe the respiratory centers and neural regulation of respiration. (2+3)

**Brief Notes:**

**(5x3=15)**

4. Deglutition mechanism
5. Urinary bladder and micturition reflex
6. Mechanism of neuromuscular transmission
7. Actions of hypercalcemic hormone in the body
8. Milk ejection reflex

**QP CODE: 113002**

**Section B - Biochemistry**

**Marks: 35**

**Essay:**

**(10)**

1. Explain the factors affecting enzyme activity.

**Short Notes:**

**(2x5=10)**

2. Trace the pathway of beta oxidation of fatty acids.
3. What is the serum calcium level and how it is regulated.

**Brief Notes:**

**(5x3=15)**

4. Secondary structure of proteins
5. Epimerism
6. Sequence of components of electron transport chain
7. Synthesis of calcitriol
8. Blood buffers