

## First Year BDS Degree Supplementary Examinations July 2019

## General Human Physiology and Biochemistry

## (2010 Scheme)

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. Describe the stages of erythropoiesis and the factors influencing it. Add a note on anemia. (6+4+4)

## Short essays

(2x8=16)

2. Mechanism of hydrochloric acid secretion and pathophysiology of peptic ulcer
3. Trace the pathway of pain sensation from face with the help of a diagram.

## Short notes

(5x4=20)

4. Gigantism
5. Determination of GFR
6. Factors influencing cardiac output
7. Hypoxia
8. Functions of oxytocin

QP CODE:103002

## Section B - Biochemistry

Marks: 50

## Essay

(14)

1. Explain how ammonia is formed in our body. Discuss about the pathway leading to conversion of ammonia to less toxic urea. Mention any four disorders of urea cycle pathway with associated enzyme defect and clinical features. (4+6+4)

## Short essays

(2x8=16)

2. What is meant by active site of an enzyme and what is its role in the function of enzyme. Mention any four factors affecting enzyme activity.
3. What is gluconeogenesis and mention the substrates of gluconeogenesis. What are the key gluconeogenic enzymes.

## Short notes

(5x4=20)

4. What are the different lipoproteins and outline its functions.
5. Mention the biochemical functions and deficiency manifestations of vitamin K.
6. Mention the complexes and components of electron transport chain.
7. What is basal metabolic rate (BMR) and mention any four factors affecting BMR.
8. What is normal serum calcium level and how serum calcium level is regulated in our body.