

First Year BDS Degree Supplementary Examinations January 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. Explain the transportation of oxygen from lungs to tissues by the blood. Draw an oxygen-hemoglobin dissociation curve and explain the factors influencing the curve with its significance. (5+3+6)

Short essays

(2x8=16)

2. Define blood pressure and mention normal values. Describe the short term regulation of blood pressure.
3. "Describe the pathway of pain from face with the help of a labelled diagram

Short notes

(5x4=20)

4. Describe the uterine changes during menstrual cycle correlating them with hormonal changes.
5. Describe the composition and functions of saliva
6. Explain the structure and functions of juxtaglomerular apparatus
7. What is the basis of Rh blood grouping. Add a note on erythroblastosis foetalis
8. Explain the action of insulin on carbohydrate and fat metabolism.

QP CODE:103002

Section B - Biochemistry

Marks: 50

Essay

(14)

1. Classify enzymes. Explain in detail about the factors that influence the enzyme activity. Describe the competitive inhibition with suitable examples. (3+6+5)

Short essays

(2x8=16)

2. Describe the steps of glycolysis
3. List the source, functions and deficiency manifestations of vitamin B₁₂.

Short notes

(5x4=20)

4. Urea cycle.
5. Functions of RNA.
6. Fluorosis.
7. Basal Metabolic Rate.
8. Catabolism of purine.