2010 Scheme

Reg. No.: ……

First Year BDS Degree Supplementary Examinations January 2021

General Human Physiology and Biochemistry

Time: 3 Hours **Max Marks: 100**

- ***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:102002 **Section A - Physiology** **Marks: 50**

Essay **(14)**

1. Describe the structure of skeletal muscle and the molecular mechanism of skeletal muscle contraction. (5+9)

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

2. Discuss the mechanisms of transport of oxygen in the blood. What is meant by hypoxia.
3. Define cardiac output. What is its normal value. Discuss the factors affecting cardiac output

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

4. ABO system of blood grouping.
5. Structure and functional significance of a synapse.
6. Errors of refraction and their correction.
7. Uterine changes during a normal menstrual cycle.
8. Micturition reflex.

QP CODE:103002 **Section B - Biochemistry** **Marks: 50**

Essay **(14)**

1. Write the steps of urea cycle. Show how urea cycle is connected to TCA cycle. What is the reference range of blood urea. Discuss the clinical significance of blood urea levels. (10+1+1+2)

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

2. What is the normal pH of the blood. Name the different defense mechanisms present in our body to maintain the normal blood pH. Explain in detail about the renal mechanism for maintaining the acid base balance.
3. Name the ketone bodies. Describe the steps of ketogenesis and ketolysis.

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

4. Digestion and absorption of proteins.
5. Name the liver function tests. Explain briefly about the excretory and synthetic functions of liver.
6. Define transamination with an example.
7. What is the reference range of serum phosphorus. Write the functions of phosphorus.
8. Biochemical functions and deficiency manifestations of thiamine.

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