

**First Year BDS Degree Supplementary Examinations August 2017****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 phases of gastric juice secretion and its regulation. Add a note on gastric ulcer (6+5+3 = 14)

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

2. Describe the phases of cardiac cycle with the help of suitable diagrams. Explain the pressure and volume changes occurring in left ventricle during cardiac cycle
3. Define a reflex. Draw the reflex arc and describe the properties of reflex action

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

4. Actions of posterior pituitary hormones
5. Re-absorption of water in renal tubules
6. Megaloblastic anemia and pernicious anemia
7. Functions of bile and gall bladder
8. Functions of middle ear

**QP CODE:103002****Section B - BIOCHEMISTRY****Marks: 50****Essay****(14)**

1. Outline the reactions of glycolysis. Calculate the energy yield during aerobic and anaerobic glycolysis. Explain the fates of pyruvate. (6+4+4 = 14)

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

2. Discuss vitamin C under the following heads: sources, RDA, functions and deficiency manifestations
3. Define:
  - BMR
  - specific dynamic action
  - transamination
  - negative nitrogen balance

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

4. Formation of bilirubin
5. Renal regulation of blood pH
6. Serum electrophoresis
7. Absorption of iron
8. Functions of cholesterol

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