

I – B.D.S. (2008 COURSE) : WINTER - 2018
SUBJECT: GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

Day : Wednesday
Date : 05/12/2018

W-2018-3751

Time: 09.00 AM TO 12.00 NOON
Max. Marks: 70.

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Both the sections should be written in **SEPARATE** answer books.
 - 3) Figures to the **RIGHT** indicate full marks.
 - 4) Draw neat labeled diagrams **WHEREVER** necessary.
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SECTION-I

Q.1 Define Immunity. Describe cell mediated immunity in detail. [2 + 8] **(10)**

OR

Define cardiac output. What is its normal value? Describe factors determining cardiac output. [2 + 1 + 7]

Q.2 Write notes on any **THREE** of the following: (3 x 5) **(15)**

- a) Methods of contraception
- b) Physiological actions of mineralocorticoids
- c) Functions of parietal lobe of cerebral cortex
- d) Surfactant

Q.3 Answer any **FIVE** of the following: (5 x 2) **(10)**

- a) Enumerate functions of cell membrane.
- b) Enumerate various ascending tracts of spinal cord.
- c) List functions of juxtaglomerular apparatus.
- d) Enlist properties of skeletal muscles.
- e) What is hypermetropia? How is it corrected?
- f) Enlist various uses of electrocardiogram?

SECTION-II

Q.4 Define enzymes. Describe the diagnostic, therapeutic and analytical applications of enzymes. [1 + 5 + 2 + 2] **(10)**

OR

Discuss the sources, Recommended Dietary Allowance (RDA), biochemical functions of calcium and phosphorus. Add a note on maintenance of serum calcium level. [2 + 1 + 3 + 4]

Q.5 Write notes on any **THREE** of the following: (3 x 5) **(15)**

- a) Jaundice
- b) Mutation
- c) Cholesterol
- d) Plasma proteins

Q.6 Answer any **FIVE** of the following: (5 x 2) **(10)**

- a) Draw and label tRNA.
- b) Enumerate essential and nonessential amino acids.
- c) Deficiency manifestations of vitamin C.
- d) Write functions of phospholipids.
- e) What is normal blood pH? Enumerate blood buffers.
- f) Enlist any four characteristics of genetic code.

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