

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

Day : **Wednesday**
Date : **06/06/2018**

S-2018-3583

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** Describe composition and functions of blood. Add a note on erythropoiesis. (10)
[3 + 3 + 4]

OR

Describe mechanics of process of respiration.

- Q.2** Write notes on any **THREE** of the following: (3 x 5) (15)
- a) Transmission of impulse across neuromuscular junction.
 - b) Properties of reflex action.
 - c) Short term mechanisms of regulation of blood pressure.
 - d) Physiological actions of glucocorticoids.

- Q.3** Answer any **FIVE** of the following: (5 x 2) (10)
- a) Enumerate properties of cardiac muscle.
 - b) Define vital capacity.
 - c) Enumerate various descending tracts in spinal cord.
 - d) What is myopia? How is it corrected?
 - e) What are physiological actions of testosterone?
 - f) What are functions of saliva?

SECTION-II

- Q.4** Describe Tricarboxylic Acid Cycle (TCA) in detail with energetics. Add a note on its amphibolic role. [6 + 4] (10)

OR

What is normal blood pH? Describe the role of blood buffers and kidney in its maintenance. [1 + 4 + 5]

- Q.5** Write notes on any **THREE** of the following: (3 x 5) (15)
- a) Vitamin D: Functions and deficiency
 - b) Glucose Tolerance Test (GTT)
 - c) Fluorosis
 - d) Liver Function Tests
- Q.6** Answer any **FIVE** of the following: (5 x 2) (10)
- a) Define isoenzymes. Give two examples.
 - b) Enumerate bonds stabilising protein structure.
 - c) Mention the sources and functions of Calcium.
 - d) What is ketosis? Name the ketone bodies.
 - e) What are the functions of cholesterol?
 - f) Define clearance. Enumerate clearance tests.

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