Total No. of Printed Pages - 3

# SS/PBN-I/BP/03-19

## 2019

(March)

## **BIOPHYSICS & BIOCHEMISTRY**

Full Marks: 75

Time: 3 hours

The figures in the margin indicate full marks for the questions

Answer all questions

Write the answers to the two Halves in separate books

#### FIRST HALF

1. Answer the following:

 $1 \times 5 = 5$ 

- (a) Give the S.I. unit of two derive & quantities.
- (b) Define acceleration due to gravity
- (c) The focal length of a lens is 25 c.m. find the power of the lens.
- (d) What is ultrasound?
- (e) Define relative humidity.

(Turn Over)

2. Answer the following:

- 2×5=1
- (a) State the law of conservation of energy. What is pulley?
- (b) Give two proper application of gravity on human body.
- (c) Define isotope and isobar.
- (d) Differentiate between systolic and diastolic pressure.
- (e) Write two applications of leser in medicine.
- 3. Answer the following:

3×5=15

- (a) Describe the importance of pressure in nursing
- (b) Discuss about physiological effects of heat.
- (c) Explain the forces acting on human body
- (d) Write shortly about three electronic equipments in patient care.
- (e) Describe the radiation protection units and limits.
- 4. Write short notes on: (any two)

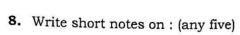
2½×2=5

- (a) Sterilization
- (b) Transistor
- (c) ECT

### SECOND HALF

- Draw the structure of an animal cell and label its various components. Mention the function of the cell.
- **\*6.** What are lipoproteins? Why HDL is said to be good cholesterol? What is Atherosclerosis? 4+3+3=10
- 7. What are the enzymes involved in digestion of carbohydrates? Write briefly about anaerobic glycolysis and mention the enzymes involved in it. 3+3+4=10

(Continued)



 $2 \times 5 = 10$ 

- (a) Glucose tolerance test
- , (b) Ketone bodies
  - (c) Immunoglobulin
  - (d) Gout
  - (e) Urea cycle
  - (f) Essential amino acids
  - (g) Gluconeogenesis.

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