



PAB-21259

Seat No. _____

First Year B. D. S. Examination

July - 2020

Physiology & Biochemistry

Time : 3 Hours]

[Total Marks : 70

- Instructions :** (1) Write answers of each section in separate answer book.
(2) Answers should be brief and draw necessary diagrams.
(3) Illegible writing will not fetch any marks.
(4) Figures to the right indicate full marks.

**SECTION - I
(Physiology)**

- 1 Define cardiac output and discuss its regulations. **10**

OR

Describe the origin and spread of cardiac impulse.

- 2 Write notes on : (any **two**) **10**

- (a) Oxygen haemoglobin dissociation curve
(b) Posterior pituitary hormones
(c) Functions of basal ganglia

- 3 (a) Write notes on : (any **two**) **10**

- (1) Hemostasis
(2) Saliva
(3) Glomerular filtration rate

- (b) Answer in few sentences : (any **five**) **5**

- (1) Name smallest blood cell and give its size
(2) Enumerate errors of refraction
(3) Define osmosis
(4) Write the effects of parasympathetic stimulation on cardiovascular system.
(5) Name two important functions of testosterone
(6) Give the normal value of End systolic ventricular blood volume.

SECTION - II
(Biochemistry, Nutrition & Dietetics)

- 4 Describe briefly : (any **two**) **10**
- (a) Organization of Electron transport chain.
 - (b) Factors affecting Enzyme activity.
 - (c) Beta oxidation of Fatty acid.
- 5 Short notes : (any **two**) **10**
- (a) Essentiality of lipid and protein in diet.
 - (b) Glycogen storage disease.
 - (c) Mutation - Types, effect and manifestation.
- 6 (a) Write short notes : (any **two**) **10**
- (1) Explain synthesis, significance and deficiency manifestation of Vitamin D
 - (2) Ketone body formation and degradation with applied aspect.
 - (3) Explain phase I and phase II reaction of Xenobiotics.
- (b) Answer the following : (any **five**) **5**
- (1) Why anemia occurs in lead poisoning?
 - (2) Why alcohol precipitate gouty attack?
 - (3) Vitamin C deficiency leads to anemia.
 - (4) Fat is burned on the wick of carbohydrate.
 - (5) Why iron is called one way element?
 - (6) Methotrexate acts as anticancer drug.
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