A (Printed Pages 4)

(21120) Roll No..

B.D.S.-I Prof.

5136 (N)

B.D.S. Supply. & Main Examination,

Nov. - 2020

Human Physiology Biochemistry

[BDS - 02 (N)]

Time : Three Hours] *[Maximum Marks : 35+35=70*

Note: (i) Attempt **all** questions.

(ii) Illustrate your answers with suitable diagram wherever necessary. Use separate copy for **Part-A** & **Part-B.**

Part - A

1. Define blood pressure & its various components. Discuss the role of baroreceptors in its regulation. 2+6=8

2. List the hormones regulating serum calcium level & write briefly about their functions. 2+6=8

3. Write short notes on any **three**- 3×3=9
   (a) Pulmonary surfactant
   (b) Juxta-glomerular apparatus
   (c) Spermatogenesis
   (d) Iron deficiency anaemia

4. Differentiate between **any two :** 2×3=6
   (a) Simple and facilitated diffusion
   (b) Myopia and hypermetropia
   (c) Action potential in skeletal & cardiac muscle.

5. Define only: 1×4=4
   (a) Cardiac output
   (b) Vital capacity
   (c) Glomerular filtration rate
   (d) Synapse

Part - B

Biochemistry

1. Give the significance of hexose monophosphate pathway. Illustrate its importance in erythrocytes. Explain the harmful effect of glucose 6 phosphate dehydrogenase enzyme deficiency. 2+2+2=6

2. Write the functions of calcium in our body. Give the normal range of serum calcium and explain how calcium level is regulated. 2+1+2=5

3. Write short notes on the following : 3×8=24

   (i) Selenium

   (ii) Antigen presenting cells

   (iii) Folate trap

   (iv) Ketone bodies

   (v) Apoptosis

   (vi) Post translational modifications

   (vii) Pre hepatic jaundice

   (viii) Competitive enzyme inhibition