

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**. $3 \times 3 = 9$

(a) Pulmonary surfactant

(b) Juxta-glomerular apparatus

(c) Spermatogenesis

(d) Iron deficiency anaemia

4. Differentiate between **any two** : $2 \times 3 = 6$

(a) Simple and facilitated diffusion

(b) Myopia and hypermetropia

(c) Action potential in skeletal & cardiac muscle.

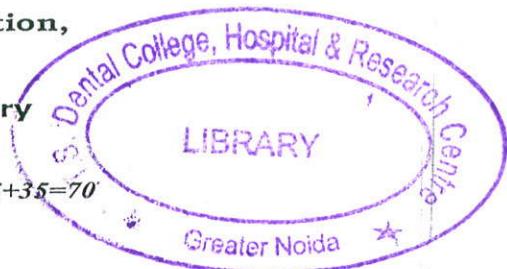
5. Define only: $1 \times 4 = 4$

(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 :

$$3 \times 8 = 24$$

- (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

