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(20518)
B.D.S.-I Prof.

Printed Pages : 3
Roll No. 6097015

5136(N)

B.D.S. Supply. & Main Examination,
May-2018

**HUMAN PHYSIOLOGY AND
BIOCHEMISTRY**

[BDS-02(N)]

Time : Three Hours]

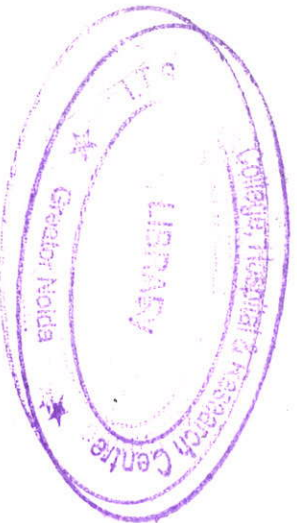
[Maximum Marks : 35+35=70

Note : (i) Attempt all questions.

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

Part-A

1. Describe the mechanism of HCl secretion and its regulation. 8
2. Define cardiac output. What are the determinants of Cardiac output. Discuss the factors affecting it. 8
3. Differentiate between the following : 3×3=9
 - (a) Myopia and hypermetropia
 - (b) Nephron and Neuron
 - (c) Hyperthyroidism and hypothyroidism.



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4. Write short notes on any *four* : $2\frac{1}{2} \times 4 = 10$

- (a) Neuromuscular Junction (NMJ)
- ✓ (b) Fate of Haemoglobin
- ✓ (c) Glomerular Filtration Rate (GFR)
- ✓ (d) Menstrual Cycle
- (e) Chemical regulation of respiration.

Part-B

Bio-Chemistry

5. Explain 'Glyogenesis' and 'Glycogenolysis' in details, showing all enzymes and coenzymes.

$5+5=10$

6. (a) How a molecule of 'lauric acid' ($C=12$) is completely oxidised in human body? Write the energetics of this pathway. $6+3=9$

(b) Explain protein synthesis in a bacterial cell under following headings- $2 \times 4 = 8$

- (i) Initiation
- (ii) Elongation
- (iii) Termination
- (iv) Post Translation Modifications

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7. Write short notes on each of the following :

$4+4=8$

- (i) Source, Functions, Requirement and Deficiency Manifestation of Vitamin-D.
- (ii) Maintenance of Blood Glucose Level.



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