



**K20U 1558**

Reg. No. : .....

Name : .....

**V Semester B.Sc. Degree (CBCSS – Reg./Sup./Imp.) Examination,  
November 2020  
(2014 Admn. Onwards)  
Core Course in Zoology**

**5B05 ZLG : BIOCHEMISTRY AND ENDOCRINOLOGY**

Time : 3 Hours

Max. Marks : 40

I. Answer **any two**.

**(2×8=16)**

- 1) Describe the different types of DNA molecules and explain the structure of B-DNA.
- 2) Explain the different endocrine glands and their functional role.
- 3) How the enzyme activity is regulated ? Explain.
- 4) With structural details, explain the Kreb's cycle.

II. Answer **any two**.

**(2×4=8)**

- 5) Describe the Glycolytic pathway and describe the balance sheet of reactions.
- 6) What are releasing and inhibiting hormones ? Give examples.
- 7) What is cyclic AMP ? Describe the biological roles of cyclic AMP.
- 8) Describe the structure of Haemoglobin.

III. Answer **any six**.

**(6×2=12)**

- 9) Draw the chemical structure of glucose.
- 10) What is pH ? What is its biological significance ?
- 11) Describe the role of Phospholipids.
- 12) What is Km value ?

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- 13) What are B Complex Vitamins ? Describe.
- 14) Explain the concept of free energy.
- 15) What is induced fit hypothesis ?
- 16) Mention the biological significance of water.

IV. Answer the following.

(4×1=4)

- 17) The energy currency of a cell is
- 18) The disease caused by the deficiency of Vitamin C is
- 19) The enzyme that convert glucose to glucose 6 phosphate is
- 20) The second messenger in hormone action is