

Biochemistry 3Y BSc sem III

2015-16

Date - 29/09/15

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VCD-29/09/15 BIOCHEMISTRY-I S.Y.B.SC. SEM III EXAM MARKS 75 2 1/2 HRS (25)

NOTE: 1. All questions are compulsory.

2. Figures to right indicate marks.

3. Draw labeled diagrams wherever necessary.

Q I) A. Answer the following :(any 4) [8]

- 1) What do you mean by prosthetic group.
- 2) Define active site.
- 3) What do you mean by holoenzyme?
- 4) How does substrate concentration affect enzyme reaction rate?
- 5) Define Michaelis- Menten constant.
- 6) What do you mean by prosthetic group?
- 7) Give name and type of reaction catalysed by enzyme having 1st E.C no 2 and 5.
- 8) Explain the term $K_{cat} = V_{max}/[E]_t$

B. Explain the following : (any 2) [6]

- 1) Give a note on double reciprocal plot.
- 2) Write a note on specific activity of enzyme.
- 3) Derive K_m from Michaelis-Menten equation.
- 4) Explain irreversible inhibition, with example.

C. Answer in brief :(any 1) [6]

- 1) Derive the Michaelis-Menten equation.
- 2) Explain enzyme specificity. Mention drawback of Michaelis-Menten equation.

Q II) A. Answer the following (any 4) [8]

- 1) What is exocrine gland; give e.g?
- 2) Define peptide hormones, give e.g.
- 3) State the location of hypothalamus gland?
- 4) Write down the chemical structure of cytokinin.
- 5) Write down the function of GnRH.
- 6) What is parthenocarpy?
- 7) Write down a brief note on fat soluble hormone receptor.
- 8) Shortly describe about ACTH.

B. Explain the following (any 2) [6]

- 1) Explain upto cyclic AMP production in G protein coupled receptor.
- 2) Write down the structure of vasopressin and state its function.
- 3) Write down the structure of auxin and state its any three functions.
- 4) State the incidence occurs during ovulatory phase of ovarian cycle.

