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0604N123

Candidate's Seat No :_____

B.Sc Semester-6 Examination

CC 310

Biochemistry

Time : 2-30 Hours] **April-2024** **[Max. Marks : 70**

Q1a) Define Vmax & Km. (02)

b) Discuss various methods of determination of Km & Vmax with their advantages & Limitations? (12)

OR

Q1 a) Discuss noncompetitive inhibitors with appropriate examples & their Kinetics. (08)

b) Describe MWC model for allosteric enzymes. (04)

Q2 a) Describe various enzyme units. (10)

b) Write a note on enzyme assay system. (04)

OR

Q2 a) Discuss Spectrophotometric method for following enzyme reaction rate in detail with various examples. (14)

Q3 Define enzyme homogeneity. Discuss in detail criteria of enzyme homogeneity in purification of enzymes. (14)

OR

Q3 a) List different types of column chromatography used in enzyme purification & discuss any one of it. (08)

b) Discuss fractional precipitation by organic solvent in detail. (06)

Q4 a) What are the advantages & disadvantages of using enzymes as medicines? Give any five examples of enzymes as medicines. (14)

OR

Q4 a) Discuss Immobilized enzymes with reference to type, advantages, any two methods of immobilization and any two applications. (14)

Q5 **Attempt any 7:** (14)

1 Write Michaelis Menten equation. What is Km in it?

2 What are Suicide inhibitors? Give an example, which enzyme does it inhibit?.

3 What is competitive inhibition? Give an example, which enzyme does it inhibit?

4 What is the other name of KNF model for Allosteric enzymes? Why?

5 When can we use manometric method for following enzyme reaction rate? Give an example.

6 Which methods can be used for following enzyme reaction rate of Oxidases & Dehydrogenases?

7 Name one salt that is most commonly used in enzyme purification & give two reason why it is commonly used?

8 What is the importance of specific activity in enzyme purification?

9 How do you select the source of enzyme for enzyme purification?

10 Give two examples of ion exchange resins used in enzyme purification.

11 Draw a labeled schematic diagram of a Biosensor.

12 Give two examples of enzymes used in food industry.