T.Y.B.SC. SEM – V (CBCS - 2016 Course) : WINTER - 2018

SUBJECT : MICROBIOLOGY ENZYME KINETICS AND REGULATION

Day : Saturday
Date : 20/10/2018

W-2018-0754

Time : 03.00 P.M. To 06.00 P.M
Max. Marks : 60

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate **FULL** marks.

Q.1 Attempt **ANY TWO** of the following. **(12)**

a) Define the term multimeric enzymes. Write the characteristics and functions of multimeric enzymes with suitable example.
b) Enlist various mechanism involved in enzyme regulation and describe any one.
c) Draw and describe Lineweaver Burk plot.

Q.2 Attempt **ANY TWO** of the following. **(12)**

a) Enlist various characteristics of allosteric enzymes.
b) Give comparative account of Uncompetitive and non-competitive inhibition.
c) Write the coenzyme form of Thiamine and state its role in any two reactions.

Q.3 Attempt **ANY TWO** of the following. **(12)**

a) Write a note on the structure of allosteric enzymes and its effect on rate of reaction and kinetic plot
b) Giving a suitable example explain feedback inhibition with reference to concerted regulation.
c) Write a structure and characteristics of ATCase.

Q.4 Write short notes on **ANY THREE** . **(12)**

a) Types of regulatory enzymes.
b) Michaelis Menten Plot
c) Biochips
d) Immobilized enzymes

Q.5 Attempt **ANY FOUR** of the following. **(12)**

a) Define V_0, Vmax and write the significance
b) Write properties of serine proteases
c) Diagramatically explain working of biosensors.
d) What are isoenzymes? Write suitable example.
e) Explain in brief any one method used in preparation of immobilized enzyme.
f) Define and give example K enzyme and M enzyme.

* * * * *