A-3001
B. Sc. (Sem. III) (Microbiology) Examination
March / April - 2015
MB-06 : Bioenergetics & Enzymology

Time : 2 Hours] [Total Marks : 50

Instructions :
(1) Fill up strictly the details of your name, institute, enrollment number, and any other necessary information on the answer book.

B.Sc. (SEM. 3) (MICROBIOLOGY)
Name of the Subject :
MB-06 : BIOENERGETICS & ENZYMOLGY
Subject Code No. 3 0 0 1

Seat No.:

(2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagrams whenever necessary.

1 Give specific answers : 12
(a) Who gave the term enzyme? What does it mean?
(b) What do you mean by free energy change? Which symbol is used to represent it?
(c) Explain isoenzyme with suitable example.
(d) Define (i) Calorie (ii) Entropy.
(e) What is Michaelis-Menten equation? State its importance.
(f) Explain geometrical specificity of enzyme with suitable example.

2 Explain/comment on any two of the following : 12
(a) ATP plays an important role in energy cycle of cell.
(b) Many scientists have contributed in the field of enzymology.
(c) Enzymes are highly specific in their action.

A-3001] [Contd...
3 Discuss any two of the following:
   (a) Discuss classification of enzymes in detail.
   (b) Describe colloidal and catalytic nature of enzyme. Explain effect of pH and temperature on enzyme activity.
   (c) Discuss competitive and noncompetitive inhibition of enzymes.

4 Write short notes on any two of the following:
   (a) Thermodynamic laws
   (b) Applications of enzymes in daily life
   (c) Allosteric effect.