



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

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

<p>नीचे दशांश देव ✎ निशान्तीवाणी विगतो उत्तरवडी पर अवश्य कभवी. Fillup strictly the details of ✎ signs on your answer book.</p> <p>Name of the Examination : ✎ B.Sc. (SEM. 3) (MICROBIOLOGY)</p> <p>Name of the Subject : ✎ MB-06 : BIOENERGETICS & ENZYMOLOGY</p> <p>✎ Subject Code No. : 3 0 0 1 ✎ Section No. (1, 2,.....) : NIL</p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div>
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- (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.

- 3** Discuss any two of the following : **16**
- (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 : **10**
- (a) Thermodynamic laws
 - (b) Applications of enzymes in daily life
 - (c) Allosteric effect.
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