

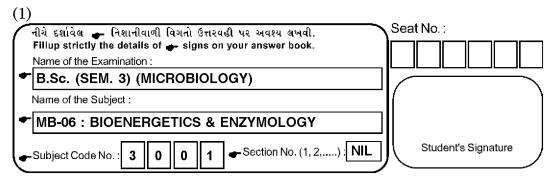
A-3001

B. Sc. (Sem. III) (Microbiology) Examination March / April - 2015

MB-06: Bioenergetics & Enzymology

Time: 2 Hours [Total Marks: 50

Instructions:



- (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:

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- (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.

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3 Discuss any two of the follow:

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- (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:

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- (a) Thermodynamic laws
- (b) Applications of enzymes in daily life
- (c) Allosteric effect.

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