

**PSG COLLEGE OF ARTS & SCIENCE**  
**(AUTONOMOUS)**  
**BSc DEGREE EXAMINATION DECEMBER 2018**  
**(First Semester)**

Branch - **BIOTECHNOLOGY**

**ENZYMOLGY**

Time: Three Hours

Maximum : 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks

(10 x 1 - 10)

- 1 Non-protein part of an enzyme is called  
 a) co-enzyme b) co-factor c) substrate d) activator
- 2 An enzyme which is devoid of its either prosthetic group or co-enzyme is designates as  
 a) holoenzyme b) apoenzyme c) substrate d) coenzyme
- 3 Which of the following statements is false with respect to an enzyme's ability to catalyse a reaction?  
 a) An enzyme provides a reaction surface and a suitable environment for the reaction to take place.  
 b) An enzyme binds reactants such that they are positioned correctly and can attain their transition-state configurations.  
 c) An enzyme allows the reaction to go through a less stable transition state than would normally be the case.  
 d) An enzyme can weaken bonds in reactants through the binding process.
- 4 Which of the following statements is incorrect with respect to an enzyme's ability to catalyse a reaction?  
 a) an enzyme provides a reaction surface and a hydrophilic environment for the reaction to take place.  
 b) an enzyme bind reactants such that they are positioned correctly and can attain their transition-state configurations.  
 c) an enzyme allows the reaction to go through a more stable transition state than would normally be the case.  
 d) an enzyme can weaken bonds in reactants through the binding process.
- 5 Name the molecule which is involved in the feedback control of the enzyme phosphorylase a?  
 a) glucose-1-phosphate b) adrenaline c) glycogen d) AMP
- 6 The Michaelis-Menton relates the rate of an enzyme-catalysed reaction to which of the following?  
 a) Substrate concentration                      b) Product concentration  
 c) Activation energy                                d) Inhibitor concentration
- 7 Regulators of enzymatic reactions are classified as  
 a) inhibitors                      b) converters                      c) activators                      d) both a and c
- 8 Identity the Model which states that specific shapes are possessed by substrate and enzyme is known as  
 a) Deduction model                      b) induction model  
 c) lock and key model d) arrow and shield model
- 9 The immobilized enzyme produced by micro encapsulation technique provides  
 a) an extremely large surface area                      b) smaller surface area  
 c) high amount of solvent                                d) relatively smaller surface area
- 10 Immobilized enzyme or cells used in  
 a) Diagnostics industry' b) Pharmaceutical industry