The City School

**North Nazimabad Boys Campus**

**Second Monthly Test Session 2019 – 20**

**Class - 9**

**Time: 35 Minutes Biology Marks 25**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sec: \_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Q.1.Choose the best answers: [5]

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1. **The general mechanism is that an enzyme acts by**
2. reducing the energy of activation
3. increasing the energy of activation
4. decreasing the pH
5. increasing the pH
6. **The enzyme is**
7. Often a metal
8. Always a protein
9. often a vitamin
10. always an inorganic compound
11. **The enzyme which hydrolyses starch to maltose is**
12. Protease
13. Amylase
14. Lipase
15. Maltase
16. **The “lock and key” model of enzyme action illustrates that a particular enzyme molecule**

 

1. forms a permanent enzyme-substrate complex
2. may be destroyed and resynthesized several times
3. interacts with a specific type of substrate molecule
4. reacts at identical rates under all conditions
5. **An enzyme is generally named by adding \_\_\_\_\_\_\_\_ to the end of the name of the \_\_\_\_\_\_\_\_\_\_\_.**
6. "-ase". coenzyme
7. "-ase". cell in which it is found
8. "-ose". substrate .
9. "-ase". substrate

Q.2.The given figure shows, in order, four stages in which an enzyme-controlled chemical reaction may occur. M O P

 

 N

1. Identify M, N, O and P. [4]

 M........................................................................ N...............................................................

 O......................................................................... P...............................................................

 (b) By referring to Fig explain why only a small amount of enzyme is needed to catalyze a reaction involving many molecules. [2]

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 (c) Enzymes show different rate of reaction at different temperatures.

(I) Explain how a rise in temperature may increase the rate of an enzyme-controlled reaction? [2]

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(ii) At high temperatures, enzymes are denatured and can no longer act as catalysts. By using the letters M and N from Fig suggest what happens when an enzyme is denatured. ? [2]

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Q.3.The graph shows a chemical (respiration) in the body:



1. Define activation energy. [2]

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1. Why more activation energy is required when reaction takes place without enzymes? [3]

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Q.4. Discuss specific features of enzymes. [5]

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Look at given atomic structures

Which electron arrangement corresponds to the first element on period 2 of the Periodic Table?