BIOLOGY

BOOKS - TRUEMAN BIOLOGY

Enzymes

Assertion And Reason

1. [A] : A few molecules of enzymes provide large area to a large number of substrate molecules .

[R] : Size of enzymes is far larger than the substrate molecules .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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2. [A] : Enzymes are proteins which catalyse biochemical reactions .

[R] : The enzyme itself is unchanged in the reaction , its presence allows the reaction to take place .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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3. [A] : Presence of flavin nucleotide is essential for the activity of some enzymes .

[R] : Flavin nucleotide is an activator of these enzymes .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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4. [A] : Coenzyme is a nonprotein group without which holoenzymes are inactive or incomplete .

[R] : Coenzymes not only provide a point of attachment for the chemical group but also influence the properties of the group .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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5. [A] : The rate of an enzymic catalysed reaction is increased from 1 to 3 times for every 10° rise in temperature .

[R] : There is an optimum temperature for

every enzyme beyond which there is no rise and may be denatured after more increases .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

6. [A] : The enzyme reacts with the substrate forming an enzyme substrate intermediary complex .

[R] : The poisoning of any single enzyme involved in a main metabolic chain will make the whole chain inoperative .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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7. [A] : The rate of enzymic reaction increases with the increase in the concentration of

enzyme .

[R] : Enzymes are needed in large quantities .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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8. [A] : The energy derived from enzyme-substrate interaction , is called energy of formation .

[R] : Free energy is the major source of energy used by enzymes to lower the activation energies of reactions .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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9. [A] : Coenzyme FMN and FAD are derived from vitamin B_2 .

[R] : These take part in electron transfer .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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10. [A] : The higher the turnover number , the more efficient the enzyme is .

[R] : Dut to high turnover number , enzymes are found in minute amount .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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11. [A] : A cell has no system to control enzyme action .

[R] : No control system is required for enzymes .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

Answer:

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