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NEET BIOMOLECULES (BIOLOGY) — PYQS

Max. Marks: 380 **Questions:** 95

Section A (MCQ) — 95 questions

Q.1 Which of the following statements are correct regarding amino acids ?

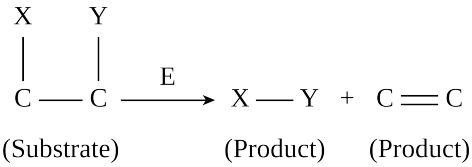
A. They are substituted methanes.
B. Serine is an aromatic amino acid.
C. Valine is a neutral amino acid.
D. Lysine is an acidic amino acid.

Choose the correct answer from the options given below : [NEET (UG) 2026]

(1) A and B only (2) C and D only
(3) B and C only (4) A and C only

Scan or tap for the full solution

Q.2 The following reaction depicts the activity of a particular class of enzymes :



Identify the enzyme class 'E' from the following options : [NEET (UG) 2026]

(1) Isomerases (2) Ligases
(3) Transferases (4) Lyases

Scan or tap for the full solution

Q.3 Match **List-I** with **List-II**. [RE-NEET (UG) 2026]

List-I		List-II	
A.	Starch	I.	Fights infection
B.	Antibody	II.	Energy storage
C.	Concanavalin A	III.	Glucose transport
D.	Glut-4	IV.	Lectin

(1) A-I, B-II, C-III, D-IV
(2) A-I, B-II, C-IV, D-III
(3) A-II, B-I, C-IV, D-III
(4) A-II, B-I, C-III, D-IV

Solution

Q.4 Arrange the following elements in descending order of their contribution to percentage weight of the human body.

A. Oxygen B. Carbon
C. Hydrogen D. Nitrogen

[RE-NEET (UG) 2026]

(1) B, A, C, D (2) A, B, C, D
(3) C, A, B, D (4) B, C, D, A

Scan or tap for the full solution

Q.5 The protein portion of an enzyme is called: [NEET (UG) 2025]

(1) Apoenzyme (2) Prosthetic group
(3) Cofactor (4) Coenzyme

Scan or tap for the full solution

Q.6 Match **List-I** with **List-II**

List - I		List - II	
A.	Adenosine	I.	Nitrogen base
B.	Adenylic acid	II.	Nucleotide
C.	Adenine	III.	Nucleoside
D.	Alanine	IV.	Amino acid

Choose the option with all correct matches. [NEET (UG) 2025]

(1) A-III, B-II, C-I, D-IV
(2) A-II, B-III, C-I, D-IV
(3) A-III, B-IV, C-II, D-I
(4) A-III, B-II, C-IV, D-I

Solution

Q.7 Which one of the following statements refers to Reductionist Biology? [NEET (UG) 2025]

(1) Chemical approach to study and understand living organisms
(2) Behavioural approach to study and understand living organisms
(3) Physico-chemical approach to study and understand living organisms
(4) Physiological approach to study and understand living organisms

Scan or tap for the full solution

Q.8 Which one of the following enzymes contains 'Haem' as the prosthetic group? [NEET (UG) 2025]

(1) Succinate dehydrogenase
(2) Catalase
(3) RuBisCO
(4) Carbonic anhydrase

Solution

Q.9 Name the class of enzyme that usually catalyses the following reaction :

$S - G + S' \longrightarrow S + S' - G$

Where, G $\longrightarrow$ a group other than hydrogen

S $\longrightarrow$ a substrate

S' $\longrightarrow$ another substrate [NEET (UG) 2025]

(1) Transferase (2) Ligase

(3) Hydrolase (4) Lyase

Solution

Q.10 Lecithin, a small molecular weight organic compound found in living tissues, is an example of: [NEET (UG) 2024]

(1) Amino acids (2) Phospholipids

(3) Glycerides (4) Carbohydrates

Scan or tap for the full solution

Q.11 The cofactor of the enzyme carboxypeptidase is: [NEET (UG) 2024]

(1) Zinc (2) Niacin (3) Flavin (4) Haem

Scan or tap for the full solution

Q.12 Inhibition of Succinic dehydrogenase enzyme by malonate is a classical example of: [NEET (UG) 2024]

(1) Cofactor inhibition

(2) Feedback inhibition

(3) Competitive inhibition

(4) Enzyme activation

Solution

Q.13 Match **List I** with **List II**

List-I		List-II	
A.	GLUT-4	I.	Hormone
B.	Insulin	II.	Enzyme
C.	Trypsin	III.	Intercellular ground substance
D.	Collagen	IV.	Enables glucose transport into cells

Choose the correct answer from the options given below. [NEET (UG) 2024]

(1) A-IV, B-I, C-II, D-III

(2) A-I, B-II, C-III, D-IV

(3) A-II, B-III, C-IV, D-I

(4) A-III, B-IV, C-I, D-II

Solution

Q.14 Match **List I** with **List II**:

List - I		List - II	
A.	Lipase	I.	Peptide bond
B.	Nuclease	II.	Ester bond
C.	Protease	III.	Glycosidic bond
D.	Amylase	IV.	Phosphodiester bond

Choose the correct answer from the options given below : [NEET (UG) 2024]

(1) A-IV, B-II, C-III, D-I

(2) A-III, B-II, C-I, D-IV

(3) A-II, B-IV, C-I, D-III

(4) A-IV, B-I, C-III, D-II

Solution

Q.15 Regarding catalytic cycle of an enzyme action, select the correct sequential steps :

A. Substrate enzyme complex formation.

B. Free enzyme ready to bind with another substrate.

C. Release of products.

D. Chemical bonds of the substrate broken.

E. Substrate binding to active site.

Choose the correct answer from the options given below : [NEET (UG) 2024]

(1) E, A, D, C, B (2) A, E, B, D, C

(3) B, A, C, D, E (4) E, D, C, B, A

Scan or tap for the full solution

Q.16 Which of the following is a nucleotide? [RE-NEET (UG) 2024]

(1) Uridine (2) Adenylic acid

(3) Guanine (4) Guanosine

Scan or tap for the full solution

Q.17 Ligases is a class of enzymes responsible for catalysing the linking together of two compounds. Which of the following bonds is not catalysed by it? [RE-NEET (UG) 2024]

(1) C – C (2) P – O (3) C – O (4) C – N

Scan or tap for the full solution

Q.18 Which of the following are not fatty acids?

A. Glutamic acid B. Arachidonic acid

C. Palmitic acid D. Lecithin

E. Aspartic acid

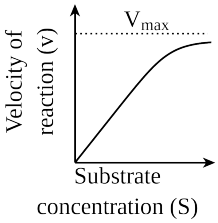
Choose the correct answer from the options given below : [RE-NEET (UG) 2024]

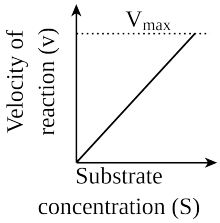
(1) C, D and E only (2) A and B only

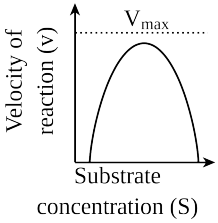
(3) A, D and E only (4) B and C only

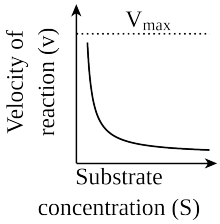
Scan or tap for the full solution

Q.19 Which of the following graphs depicts the effect of substrate concentration on velocity of enzyme catalysed reaction? [RE-NEET (UG) 2024]

(1) 

(2) 

(3) 

(4) 

Scan or tap for the full solution

Q.20 Enzymes that catalyse the removal of groups from substrates by mechanisms other than hydrolysis leaving double bonds, are known as : [RE-NEET (UG) 2024]

(1) Transferases (2) Oxidoreductases
(3) Dehydrogenases (4) Lyases

Scan or tap for the full solution

Q.21 Match **List-I** with **List-II**.

List - I		List - II	
A.	Primary structure of protein	I.	Human haemoglobin
B.	Secondary structure of protein	II.	Disulphide bonds
C.	Tertiary structure of protein	III.	Polypeptide chain
D.	Quaternary structure of protein	IV.	Alpha helix and β sheet

Choose the correct answer from the options given below : [RE-NEET (UG) 2024]

(1) A-III, B-IV, C-II, D-I
(2) A-III, B-II, C-I, D-IV
(3) A-I, B-III, C-II, D-IV
(4) A-IV, B-III, C-II, D-I

Solution

Q.22 Cellulose does not form blue colour with Iodine because [NEET (UG) 2023]

(1) It is a helical molecule
(2) It does not contain complex helices and hence cannot hold iodine molecules
(3) It breaks down when iodine reacts with it
(4) It is a disaccharide

Scan or tap for the full solution

Q.23 Malonate inhibits the growth of pathogenic bacteria by inhibiting the activity of [NEET (UG) 2023]

(1) Amylase
(2) Lipase
(3) Dinitrogenase
(4) Succinic dehydrogenase

Solution

Q.24 Given below are two statements:

Statement-I: A protein is imagined as a line, the left end represented by first amino acid (C-terminal) and the right end represented by last amino acid (N-terminal).

Statement-II: Adult human haemoglobin consists of 4 subunits (two subunits of α type and two subunits of β type).

In the light of the above statements, choose the correct answer from the options given below: [NEET (UG) 2023]

(1) Both Statement-I and Statement-II are false.
(2) Statement-I is true but Statement-II is false.
(3) Statement-I is false but Statement-II is true.
(4) Both Statement-I and Statement-II are true.

Scan or tap for the full solution

Q.25 Given below are two statements:

Statement-I: Low temperature preserves the enzyme in a temporarily inactive state whereas high temperature destroys enzymatic activity because proteins are denatured by heat.

Statement-II: When the inhibitor closely resembles the substrate in its molecular structure and inhibits the activity of the enzyme, it is known as competitive inhibitor.

In the light of the above statements, choose the correct answer from the options given below: [NEET (UG) 2023]

(1) Both Statement-I and Statement-II are false.
(2) Statement-I is true but Statement-II is false.
(3) Statement-I is false but Statement-II is true.
(4) Both Statement-I and Statement-II are true.

Scan or tap for the full solution

Q.26 Read the following statements on lipids and find out correct set of statements :

A. Lecithin found in the plasma membrane is a glycolipid
B. Saturated fatty acids possess one or more C=C bonds
C. Gingelly oil has lower melting point, hence remains as oil in winter

D. Lipids are generally insoluble in water but soluble in some organic solvents
E. When fatty acid is esterified with glycerol, monoglycerides are formed

Choose the correct answer from the options given below: [NEET (UG) 2022]

(1) A, B and C only (2) A, D and E only
(3) C, D and E only (4) A, B and D only

Scan or tap for the full solution

Q.27 A dehydration reaction links two glucose molecules to produce maltose. If the formula for glucose is $C_6H_{12}O_6$ then what is the formula for maltose? [NEET (UG) 2022]

(1) $C_{12}H_{20}O_{10}$ (2) $C_{12}H_{24}O_{12}$
(3) $C_{12}H_{22}O_{11}$ (4) $C_{12}H_{24}O_{11}$

Scan or tap for the full solution

Q.28 Match **List-I** with **List-II**:

List-I (Biological Molecules)		List-II (Biological functions)	
a.	Glycogen	i.	Hormone
b.	Globulin	ii.	Biocatalyst
c.	Steroids	iii.	Antibody
d.	Thrombin	iv.	Storage product

Choose the correct answer from the options given below: [NEET (UG) 2022]

(1) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)
(2) (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii)
(3) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
(4) (a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)

Solution

Q.29 Match **List-I** with **List-II**

List-I		List-II	
a.	Adenine	i.	Pigment
b.	Anthocyanin	ii.	Polysaccharide
c.	Chitin	iii.	Alkaloid
d.	Codeine	iv.	Purine

Choose the correct answer from the options given below [NEET (UG) 2022 (Phase 2)]

(1) (a) - (i), (b) - (iv), (c) - (iii), (d) - (ii)
(2) (a) - (iv), (b) - (i), (c) - (ii), (d) - (iii)
(3) (a) - (iv), (b) - (iii), (c) - (ii), (d) - (i)
(4) (a) - (iii), (b) - (i), (c) - (iv), (d) - (ii)

Scan or tap for the full solution

Q.30 Primary proteins are also called as polypeptides because : [NEET (UG) 2022 (Phase 2)]

(1) They can assume many conformations
(2) They are linear chains
(3) They are polymers of peptide monomers
(4) Successive amino acids are joined by peptide bonds

Scan or tap for the full solution

Q.31 Given below are two statements:

Statement-I: Amino acids have a property of ionizable nature of $-NH_2$ and $-COOH$ groups, hence have different structures at different pH.

Statement-II: Amino acids can exist as Zwitterionic form at acidic and basic pH.

In the light of the above statements, choose the most appropriate answer from the options given below: [NEET (UG) 2022 (Phase 2)]

(1) Statement-I is incorrect but Statement-II is correct
(2) Both Statement-I and Statement-II are correct
(3) Both Statement-I and Statement-II are incorrect
(4) Statement-I is correct but Statement-II is incorrect

Scan or tap for the full solution

Q.32 In the enzyme which catalyses the breakdown of:

$2H_2O_2 \longrightarrow 2H_2O + O_2$

the prosthetic group is : [NEET (UG) 2022 (Phase 2)]

(1) Niacin
(2) Nicotinamide adenine dinucleotide
(3) Haem
(4) Zinc

Scan or tap for the full solution

Q.33 Which of the following are not secondary metabolites in plants? [NEET (UG) 2021]

(1) Rubber, gums
(2) Morphine, codeine
(3) Amino acids, glucose
(4) Vinblastin, curcumin

Solution

Q.34 Match **List-I** with **List-II**.

List-I		List-II	
a.	Protein	i.	C=C double bonds
b.	Unsaturated fatty acid	ii.	Phosphodiester bonds
c.	Nucleic acid	iii.	Glycosidic bonds
d.	Polysaccharide	iv.	Peptide bonds

Choose the correct answer from the options given below. [NEET (UG) 2021]

(1) (a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)
(2) (a)-(iv), (b)-(i), (c)-(ii), (d)-(iii)
(3) (a)-(i), (b)-(iv), (c)-(iii), (d)-(ii)
(4) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)

Solution

Q.35 Identify the incorrect pair [NEET (UG) 2021]
(1) Drugs - Ricin
(2) Alkaloids - Codeine
(3) Toxin - Abrin
(4) Lectins - Concanavalin A

Solution

Q.36 Following are the statements with reference to 'lipids'.
A. Lipids having only single bonds are called unsaturated fatty acids
B. Lecithin is a phospholipid.
C. Trihydroxy propane is glycerol
D. Palmitic acid has 20 carbon atoms including carboxyl carbon.
E. Arachidonic acid has 16 carbon atoms.
Choose the correct answer from the options given below. [NEET (UG) 2021]
(1) B and E only (2) A and B only
(3) C and D only (4) B and C only

Scan or tap for the full solution

Q.37 Identify the substances having glycosidic bond and peptide bond, respectively in their structure [NEET (UG) 2020]
(1) Glycerol, trypsin (2) Cellulose, lecithin
(3) Inulin, insulin (4) Chitin, cholesterol

Scan or tap for the full solution

Q.38 Which one of the following is the most abundant protein in the animals? [NEET (UG) 2020]
(1) Collagen (2) Lectin
(3) Insulin (4) Haemoglobin

Scan or tap for the full solution

Q.39 Match the following

Column-I		Column-II	
a.	Inhibitor of catalytic activity	i.	Ricin
b.	Possess peptide bonds	ii.	Malonate
c.	Cell wall material in fungi	iii.	Chitin
d.	Secondary metabolite	iv.	Collagen

Choose the correct option from the following [NEET (UG) 2020]
(1) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)
(2) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)
(3) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
(4) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)

Solution

Q.40 Identify the basic amino acid from the following [NEET (UG) 2020]
(1) Valine (2) Lysine
(3) Tyrosine (4) Glutamic Acid

Scan or tap for the full solution

Q.41 Concanavalin A is: [NEET (UG) 2019]
(1) a lectin (2) a pigment
(3) an alkaloid (4) an essential oil

Scan or tap for the full solution

Q.42 Consider the following statements:
A. Coenzyme or metal ion that is tightly bound to enzyme protein is called prosthetic group.
B. A complete catalytic active enzyme with its bound prosthetic group is called apoenzyme
Select the **correct** option [NEET (UG) 2019]
(1) Both A and B are false
(2) A is false but B is true
(3) Both A and B are true
(4) A is true but B is false

Solution

Q.43 The two functional groups characteristic of sugars are [NEET 2018]
(1) carbonyl and methyl
(2) carbonyl and hydroxyl
(3) hydroxyl and methyl
(4) carbonyl and phosphate

Solution

Q.44 Which of the following statements is correct with reference to enzymes? [NEET 2017]
(1) Holoenzyme = Apoenzyme + Coenzyme
(2) Coenzyme = Apoenzyme + Holoenzyme
(3) Holoenzyme = Coenzyme + Co-factor
(4) Apoenzyme = Holoenzyme + Coenzyme

Scan or tap for the full solution

Q.45 Which of the following are not polymeric? [NEET 2017]
(1) Proteins (2) Polysaccharides
(3) Lipids (4) Nucleic acids

Scan or tap for the full solution

Q.46 A typical fat molecule is made up of [NEET 2016 (Phase 1)]
(1) one glycerol and one fatty acid molecule
(2) three glycerol and three fatty acid molecules
(3) three glycerol molecules and one fatty acid molecule
(4) one glycerol and three fatty acid molecules.

Scan or tap for the full solution

Q.47 Which one of the following statements is wrong? [NEET 2016 (Phase 1)]

(1) Uracil is a pyrimidine.
(2) Glycine is a sulphur containing amino acid.
(3) Sucrose is a disaccharide.
(4) Cellulose is a polysaccharide.

Scan or tap for the full solution

Q.48 A non-proteinaceous enzyme is [NEET 2016 (Phase 2)]

(1) lysozyme (2) ribozyme
(3) ligase (4) deoxyribonuclease.

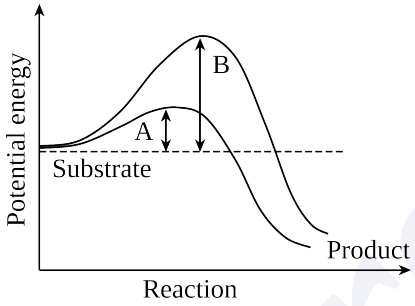
Scan or tap for the full solution

Q.49 Which of the following is the least likely to be involved in establishing the three-dimensional folding of most proteins? [NEET 2016 (Phase 2)]

(1) Hydrogen bonds
(2) Electrostatic interaction
(3) Hydrophobic interaction
(4) Ester bonds

Solution

Q.50 Which of the following describes the given graph correctly? [NEET 2016 (Phase 2)]



(1) Endothermic reaction with energy A in presence of enzyme and B in absence of enzyme.
(2) Exothermic reaction with energy A in presence of enzyme and B in absence of enzyme.
(3) Endothermic reaction with energy A in absence of enzyme and B in presence of enzyme.
(4) Exothermic reaction with energy A in absence of enzyme and B in presence of enzyme.

Scan or tap for the full solution

Q.51 The chitinous exoskeleton of arthropods is formed by the polymerisation of [AIPMT 2015]

(1) N-acetyl glucosamine
(2) lipoglycans
(3) keratin sulphate and chondroitin sulphate
(4) D-glucosamine.

Scan or tap for the full solution

Q.52 Which of the following biomolecules does have a phosphodiester bond? [AIPMT 2015]

(1) Amino acids in a polypeptide
(2) Nucleotides in a nucleic acid
(3) Fatty acids in a diglyceride
(4) Monosaccharides in a polysaccharide

Scan or tap for the full solution

Q.53 Which one of the following statements is incorrect? [AIPMT 2015 (Cancelled)]

(1) The competitive inhibitor does not affect the rate of breakdown of the enzyme-substrate complex.
(2) The presence of the competitive inhibitor decreases the K_m of the enzyme for the substrate.
(3) A competitive inhibitor reacts reversibly with the enzyme to form an enzyme-inhibitor complex.
(4) In competitive inhibition, the inhibitor molecule is not chemically changed by the enzyme.

Scan or tap for the full solution

Q.54 Select the option which is not correct with respect to enzyme action. [AIPMT 2014]

(1) Substrate binds with enzyme at its active site.
(2) Addition of a lot of succinate does not reverse the inhibition of succinic dehydrogenase by malonate.
(3) A non-competitive inhibitor binds the enzyme at a site distinct from that which binds the substrate.
(4) Malonate is a competitive inhibitor of succinic dehydrogenase.

Scan or tap for the full solution

Q.55 Which one of the following is a non-reducing carbohydrate? [AIPMT 2014]

(1) Maltose (2) Sucrose
(3) Lactose (4) Ribose 5-phosphate

Scan or tap for the full solution

Q.56 A phosphoglyceride is always made up of [NEET 2013]

(1) a saturated or unsaturated fatty acid esterified to glycerol molecule to which a phosphate group is also attached.
(2) a saturated or unsaturated fatty acid esterified to a phosphate group which is also attached to a glycerol molecule.

(3) only a saturated fatty acid esterified to a glycerol molecule to which a phosphate group is also attached.

(4) only an unsaturated fatty acid esterified to a glycerol molecule to which a phosphate group is also attached.

Scan or tap for the full solution

Q.57 Macromolecule chitin is [NEET 2013]

(1) sulphur containing polysaccharide

(2) simple polysaccharide

(3) nitrogen containing polysaccharide

(4) phosphorus containing polysaccharide.

Scan or tap for the full solution

Q.58 Transition state structure of the substrate formed during an enzymatic reaction is [NEET 2013]

(1) transient and unstable

(2) permanent and stable

(3) transient but stable

(4) permanent but unstable.

Solution

Q.59 For its activity, carboxypeptidase requires [AIPMT 2012 (Mains)]

(1) Zinc (2) iron (3) niacin (4) copper

Scan or tap for the full solution

Q.60 The essential chemical components of many coenzymes are [NEET 2013]

(1) carbohydrates (2) vitamins

(3) proteins (4) nucleic acids.

Scan or tap for the full solution

Q.61 Which of the following statements about enzymes is wrong? [NEET 2013 (Karnataka)]

(1) Enzymes are denaturated at high temperatures.

(2) Enzymes are mostly proteins but some are lipids also.

(3) Enzymes are highly specific.

(4) Enzymes require optimum pH and temperature for maximum activity.

Scan or tap for the full solution

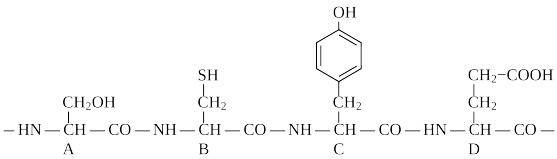
Q.62 Uridine, present only in RNA is a [NEET 2013 (Karnataka)]

(1) nucleoside (2) nucleotide

(3) purine (4) pyrimidine.

Scan or tap for the full solution

Q.63 The figure shows a hypothetical tetrapeptide portion of a protein with parts labelled A - D. Which one of the following options is correct? [NEET 2013 (Karnataka)]



(1) D is an acidic amino acid-glutamic acid.

(2) C is an aromatic amino acid-tryptophan.

(3) A is the C-terminal amino acid and D is N-terminal amino acid.

(4) A is a sulphur containing amino acid methionine.

Scan or tap for the full solution

Q.64 Which one of the following biomolecules is correctly characterized? [AIPMT 2012 (Mains)]

(1) Lecithin – a phosphorylated glyceride found in cell membrane.

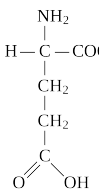
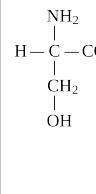
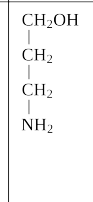
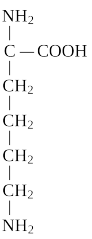
(2) Palmitic acid – an unsaturated fatty acid with 18 carbon atoms.

(3) Adenylic acid – adenosine with a glucose phosphate molecule.

(4) Alanine amino acid – contains an amino group and an acidic group anywhere in the molecule.

Scan or tap for the full solution

Q.65 Which one out of A - D given below correctly represents the structural formula of the basic amino acid? [AIPMT 2012 (Prelims)]

A	B	C	D
			

(1) C (2) D (3) A (4) B

Scan or tap for the full solution

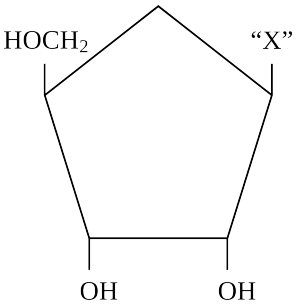
Q.66 Which one is the most abundant protein in the animal world? [AIPMT 2012 (Prelims)]

(1) Trypsin (2) Haemoglobin

(3) Collagen (4) Insulin

Scan or tap for the full solution

Q.67 The given diagrammatic representation shows one of the categories of small molecular weight organic compounds in the living tissues. Identify the category shown and the one blank component "X" in it. [AIPMT 2012 (Prelims)]



(1)

Category	Component
Cholesterol	Guanine

(2)

Category	Component
Amino acid	NH_2

(3)

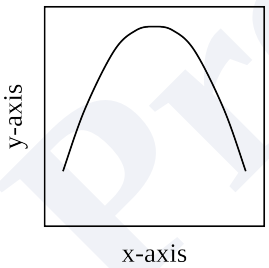
Category	Component
Nucleotide	Adenine

(4)

Category	Component
Nucleoside	Uracil

Scan or tap for the full solution

Q.68 The curve given below shows enzymatic activity in relation to three conditions (pH, temperature and substrate concentration). What do the two axes (x and y) represent? [AIPMT 2011 (Prelims)]



(1)

x–axis	y–axis
enzymatic activity	pH

(2)

x–axis	y–axis
temperature	enzyme activity

(3)

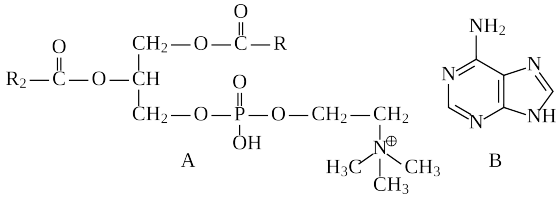
x–axis	y–axis
substrate concentration	enzymatic activity

(4)

x–axis	y–axis
enzymatic activity	temperature

Scan or tap for the full solution

Q.69 Which one of the following structural formulae of two organic compounds is correctly identified along with its related function? [AIPMT 2011 (Prelims)]



(1) B : Adenine – A nucleotide that makes up nucleic acids

(2) A : Triglyceride – Major source of energy

(3) B : Uracil – A component of DNA

(4) A : Lecithin – A component of cell membrane

Scan or tap for the full solution

Q.70 Three of the following statements about enzymes are correct and one is wrong. Which one is wrong? [AIPMT 2010 (Mains)]

(1) Enzymes require optimum pH for maximal activity.

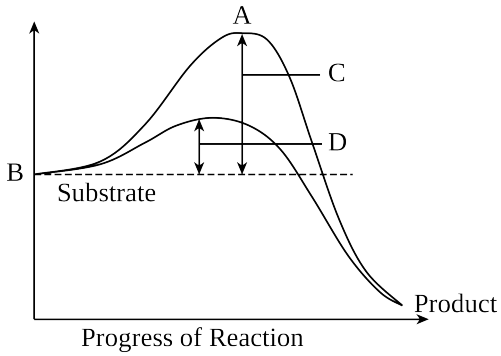
(2) Enzymes are denatured at high temperature but in certain exceptional organisms they are effective even at temperatures 80°–90°C.

(3) Enzymes are highly specific.

(4) Most enzymes are proteins but some are lipids.

Scan or tap for the full solution

Q.71 The figure given below shows the conversion of a substrate into product by an enzyme. In which one of the four options (1 – 4) the components of reaction labelled as A, B, C and D are identified correctly? [AIPMT 2010 (Mains)]



(1)

A	B	C
Potential energy	Transition state	Activation energy

(2)

A	B	C
Transition state	Potential energy	Activation energy w

(3)

A	B	C
Potential energy	Transition state	Activation energy w

(4)

A	B	C	D
Activation energy with enzyme	Transition state	Activation energy without enzyme	Potential energy

Scan or tap for the full solution

Q.72 Carbohydrates are commonly found as starch in plant storage organs. Which of the following five properties of starch (A – E) make it useful as a storage material?
The useful properties are
A. Easily translocated
B. Chemically non-reactive
C. Easily digested by animals
D. Osmotically inactive
E. Synthesized during photosynthesis
[AIPMT 2008]
(1) (A), (C) and (E) (2) (A) and (E)
(3) (B) and (C) (4) (B) and (D)

Scan or tap for the full solution

Q.73 A competitive inhibitor of succinic dehydrogenase is [AIPMT 2008]
(1) α-ketoglutarate (2) malate
(3) malonate (4) oxaloacetate

Scan or tap for the full solution

Q.74 About 98 percent of the mass of every living organism is composed of just six elements including carbon, hydrogen, nitrogen, oxygen and [AIPMT 2007]
(1) sulphur and magnesium
(2) magnesium and sodium
(3) calcium and phosphorus
(4) phosphorus and sulphur

Solution

Q.75 An organic substance bound to an enzyme and essential for its activity is called [AIPMT 2006]
(1) isoenzyme (2) coenzyme
(3) holoenzyme (4) apoenzyme

Scan or tap for the full solution

Q.76 The catalytic efficiency of two different enzymes can be compared by the [AIPMT 2005]
(1) formation of the product
(2) pH of optimum value
(3) K_m value
(4) molecular size of the enzyme.

Solution

Q.77 Which one of the following statements regarding enzyme inhibition is correct? [AIPMT 2005]
(1) Competitive inhibition is seen when a substrate competes with an enzyme for binding to an inhibitor protein.
(2) Competitive inhibition is seen when the substrate and the inhibitor compete for the active site on the enzyme.
(3) Non-competitive inhibition of an enzyme can be overcome by adding large amount of substrate.
(4) Non-competitive inhibitors often bind to the enzyme irreversibly.

Scan or tap for the full solution

Q.78 Enzymes, vitamins and hormones can be classified into a single category of biological chemicals, because all of these [AIPMT 2005]
(1) help in regulating metabolism
(2) are exclusively synthesized in the body of a living organism as at present
(3) are conjugated proteins
(4) enhance oxidative metabolism.

Scan or tap for the full solution

Q.79 Which of the following is the simplest amino acid? [AIPMT 2005]
(1) Alanine (2) Asparagine
(3) Glycine (4) Tyrosine

Scan or tap for the full solution

Q.80 Nucleotides are building blocks of nucleic acids. Each nucleotide is a composite molecule formed by [AIPMT 2005]
(1) base-sugar-phosphate
(2) base-sugar-OH
(3) $(\text{base-sugar-phosphate})_n$
(4) sugar-phosphate

Solution

Q.81 Carbohydrates, the most abundant biomolecule on earth, are produced by [AIPMT 2005]
(1) some bacteria, algae and green plant cells
(2) fungi, algae and green plant cells
(3) all bacteria, fungi and algae
(4) viruses, fungi and bacteria.

Scan or tap for the full solution

Q.82 With which one of the following enzymes is copper necessarily associated as an activator? [AIPMT 2004]
(1) Carbonic anhydrase
(2) Tryptophanase
(3) Lactic dehydrogenase
(4) Tyrosinase

Solution

Q.83 The major role of minor elements inside living organisms is to act as [AIPMT 2003]
(1) co-factors of enzymes

(2) building blocks of important amino acids
(3) constituent of hormones
(4) binder of cell structure.

Scan or tap for the full solution

Q.84 In which one of the following nitrogen is not a constituent ? [AIPMT 2003]
(1) Pepsin (2) Invertase
(3) Idioblast (4) Bacteriochlorophyll

Scan or tap for the full solution

Q.85 Lipids are insoluble in water because lipid molecules are [AIPMT 2002]
(1) hydrophilic (2) hydrophobic
(3) neutral (4) zwitterions.

Scan or tap for the full solution

Q.86 Which of the following is a reducing sugar? [AIPMT 2002]
(1) Galactose
(2) Gluconic acid
(3) β-methyl galactoside
(4) Sucrose

Solution

Q.87 Collagen is: [AIPMT 2002]
(1) Globular protein (2) Fibrous protein
(3) Carbohydrate (4) Lipid

Scan or tap for the full solution

Q.88 Most abundant organic compound on earth is [AIPMT 2001]
(1) Cellulose (2) Steroids
(3) Protein (4) Lipids

Scan or tap for the full solution

Q.89 Spoilage of oil can be detected by which fatty acid? [AIPMT 2001]
(1) Linolenic acid (2) Erucic acid
(3) Linoleic acid (4) Oleic acid

Scan or tap for the full solution

Q.90 In plants, inulin and pectin are [AIPMT 2001]
(1) Excretory material
(2) Reserve material
(3) Insect attracting material
(4) Wastes

Solution

Q.91 Role of enzyme in reactions is to/as [AIPMT 2000]
(1) decrease activation energy
(2) increase activation energy
(3) inorganic catalyst
(4) none of the above.

Solution

Q.92 Which factor is responsible for inhibition of enzymatic process during feedback? [AIPMT 2000]
(1) Substrate (2) Enzymes
(3) End product (4) Temperature

Scan or tap for the full solution

Q.93 ATP is [AIPMT 2000]
(1) nucleotide (2) nucleoside
(3) nucleic acid (4) vitamin.

Scan or tap for the full solution

Q.94 Which of the following have carbohydrate as prosthetic group? [AIPMT 2000]
(1) Glycoprotein (2) Chromoprotein
(3) Lipoprotein (4) Nucleoprotein

Scan or tap for the full solution

Q.95 Essential amino acid is [AIPMT 2000]
(1) phenylalanine (2) glycine
(3) aspartic acid (4) serine

Solution

ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	**4**	**4**	**3**	**2**	**1**	**1**	**3**	**2**	**1**	**2**	**1**
Ques.	12	13	14	15	16	17	18	19	20	21	22
Ans.	**3**	**1**	**3**	**1**	**2**	**1**	**3**	**1**	**4**	**1**	**2**
Ques.	23	24	25	26	27	28	29	30	31	32	33
Ans.	**4**	**3**	**4**	**3**	**3**	**4**	**2**	**4**	**4**	**3**	**3**
Ques.	34	35	36	37	38	39	40	41	42	43	44
Ans.	**2**	**1**	**4**	**3**	**1**	**3**	**2**	**1**	**4**	**2**	**1**
Ques.	45	46	47	48	49	50	51	52	53	54	55
Ans.	**3**	**4**	**2**	**2**	**4**	**2**	**1**	**2**	**2**	**2**	**2**
Ques.	56	57	58	59	60	61	62	63	64	65	66
Ans.	**1**	**3**	**1**	**1**	**2**	**2**	**1**	**1**	**1**	**2**	**3**
Ques.	67	68	69	70	71	72	73	74	75	76	77
Ans.	**4**	**2**	**4**	**4**	**2**	**4**	**3**	**4**	**2**	**3**	**2**
Ques.	78	79	80	81	82	83	84	85	86	87	88
Ans.	**1**	**3**	**1**	**1**	**4**	**1**	**3**	**2**	**1**	**2**	**1**
Ques.	89	90	91	92	93	94	95				
Ans.	**2**	**2**	**1**	**3**	**1**	**1**	**1**				