



BIOLOGY

BOOKS - PREMIERS PUBLISHERS

BIOMOLECULES

Textbook Questions Answers Mcq

1. The most basic amino acid is

A. Arginine

B. Histidine

C. Glycine

D. Glutamine

Answer: A



Watch Video Solution

2. An example of feedback inhibition is

A. Cyanide action on cytochrome

B. Sulpha drug on folic acid synthesiser
bacteria

C. Allosteric inhibition of hexokinase by
glucose-6-phosphate

D. The inhibition of succinic dehydrogenase
by malonate

Answer: C



Watch Video Solution

3. Enzymes that catalyse interconversion of optical, geometrical or positional isomers are

A. Ligases

B. Lyases

C. Hydrolases

D. Isomerases

Answer: D



Watch Video Solution

4. Proteins perform many physiological functions. For example some functions as enzymes. One of the following represents an additional function that some proteins discharge :

A. Antibiotics

B. Pigments conferring colour to skin

C. Pigments making colours of flowers

D. Hormones

Answer: A



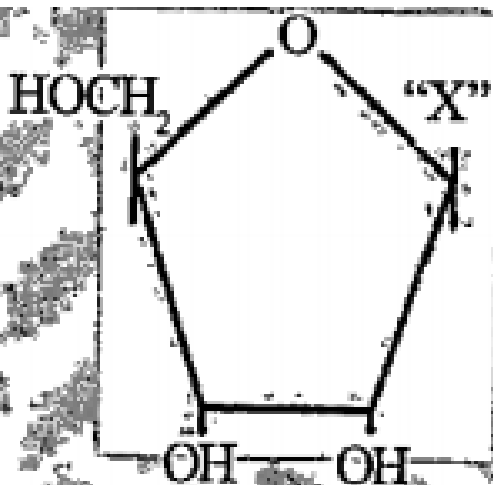


Watch Video Solution

Textbook Questions Answers Answer The Following Questions

1. Given below is the diagrammatic representation of 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:



Category Component



[Watch Video Solution](#)

2. Distinguish between nitrogenous base and a base found in inorganic chemistry.



[Watch Video Solution](#)

3. What are the factors affecting the rate of enzyme reaction?



Watch Video Solution

4. Briefly outline the classification of enzymes.



Watch Video Solution

5. Write the characteristic features of DNA.



[Watch Video Solution](#)

6. Explain the structure and function of different types of RNA.



[Watch Video Solution](#)

Other Important Questions Answers M C Q

1. The most abundant chemical in living organisms could be

A. Minerals

B. Macromolecules

C. Water

D. Protein

Answer: C



Watch Video Solution

2. In a water molecule, the hydrogen and oxygen atom stick together by:

A. Monovalent bond

B. Covalent bond

C. Hydrogen bond

D. None of the above

Answer: B



Watch Video Solution

3. Morphine is the first alkaloid to be found from a plant called:

A. *Vinca rosea*

B. Sweet pea

C. *Delonix regia*

D. *Papaver somniferum*

Answer: D



Watch Video Solution

4. Indicate a macromolecule:

A. Amino acid

B. Protein

C. Nucleotide

D. Glucose

Answer: B



Watch Video Solution

5. Number of sugar units in oligo saccharides

are ____

A. 4 to 15

B. 6 to 8

C. 2 to 10

D. 11 to 12

Answer: C



Watch Video Solution

6. Sucrose is a _____

A. Polysaccharide

B. Disaccharide

C. Monosaccharide

D. Triglyceride

Answer: B



Watch Video Solution

7. A test for the presence of starch by adding a solution of iodine gives:

A. Greenish blue colour

B. Reddish green colour

C. blue-black colour

D. Violet-pink colour

Answer: C



Watch Video Solution

8. Glycogen is not seen in ____ cells.

A. Muscle fibre

B. Liver

C. Brain

D. Kidney

Answer: C



Watch Video Solution

9. Chitin is composed of

A. Mucopolysaccharides

B. Oligopolysaccharides

C. Glycoprotein

D. Dipolysaccharides

Answer: A



Watch Video Solution

10. Match the following

(i) Inulin	(a) heteropolymer of D glucose
(ii) Hyaluronic acid	(b) Mucopolysaccharides
(iii) Heparin	(c) Polymer of fructose
(iv) Agar	(d) Glycosamine glycon

A. i-c, ii-a, iii-d, iv-b

B. i-d, ii-c iii-b, iv-a

C. i-b, ii-a, iii-d, iv-c

D. i-c, ii-a, iii-d, iv-b

Answer: A



Watch Video Solution

11. Lipids do not include

A. Steroid

B. Waxes

C. Enzymes

D. phospholipids

Answer: C



[Watch Video Solution](#)

12. A molecule of glycerol bond to have:

- A. 5 fatty acids
- B. 6 fatty acids
- C. 4 fatty acids
- D. 3 fatty acids

Answer: D



[Watch Video Solution](#)

13. Indicate a saturated fatty acids:

A. Palmitic acid

B. Oleic acid

C. Linoleic acid

D. None of the above

Answer: A



Watch Video Solution

14. Phospholipids serve as major structural component of:

- A. Feathers
- B. Cell membrane
- C. Leaves
- D. Skin

Answer: B



Watch Video Solution

15. Cholesterol is an example of _____ .

A. Membrane lipids

B. Triglycerides

C. Steroids

D. Adipose tissue

Answer: C



Watch Video Solution

16. The term 'protein' was coined by

A. Watson

B. Gerardus Johannes Mulder

C. Erwin Chargaff

D. Maurice Wilkins

Answer: B



Watch Video Solution

17. Who first sequenced insulin protein?

A. Fred Sanger

B. Robert Brown

C. Robert Hooke

D. Christian Anfinsen

Answer: A



Watch Video Solution

18. Protein is synthesized in:

A. Mitochondria

B. Golgi body

C. Lysosome

D. Ribosome

Answer: D



Watch Video Solution

19. A linear arrangement of amino acids is a polypeptide chain is seen in

A. Secondary structure of protein

B. Primary structure of protein

C. Tertiary structure of protein

D. Quaternary protein structure

Answer: B



Watch Video Solution

20. Protein denaturation is due to:

A. Exposure to pressure

B. Exposure to UV light

C. Exposure to heat

D. All of the above

Answer: C



Watch Video Solution

21. What is hydrogen bonding?

A. Oxygen and methane

B. Ethylene and nitrogen

C. Nitrogen and methane

D. Oxygen and nitrogen

Answer: D



Watch Video Solution

22. Proteins are polypeptide chains made up of amino acids connected through peptide bonds. This sequence of amino acid is said to be _____ structure of proteins.

- A. Glycine and alanine
- B. Serine and proline
- C. Cysteine and methionine

D. Aspartate and glutamate

Answer: C



Watch Video Solution

23. Synthesis of polysaccharides from simple sugars is termed as

A. Catabolic reaction

B. Anabolic reaction

C. Hydrolytic reaction

D. Oxydative reaction

Answer: B



Watch Video Solution

24. Indicate the correct statement:

A. The rate of reaction is indirectly proportional to the enzyme concentration.

B. The rate of reaction is directly proportional to the enzyme concentration.

C. The rate of reaction is indirectly proportional to increase of temperature

D. None of the above.

Answer: C



Watch Video Solution

25. The increased concentration of malonate inhibits the reaction of the enzyme, succinic dehydrogenase. This type of inhibitors are termed as:

- A. Competitive inhibitors
- B. Non-competitive inhibitors
- C. Irreversible inhibitors
- D. None of the above

Answer: A



Watch Video Solution

26. NADP serves as:

- A. Apoenzyme
- B. Holoenzyme
- C. Coenzyme
- D. None of the above

Answer: C



Watch Video Solution

27. Formation of new chemical bonds using ATP as a source of energy is the mode of action of the enzymes.

A. Hydrolase

B. Isomerase

C. Lyase

D. Ligase

Answer: D



Watch Video Solution

28. DNA and RNA are polymers of monomers called:

- A. Nucleoside
- B. Nucleotide
- C. Pyrimidine
- D. Dinucleotide

Answer: B



Watch Video Solution

29. Which of the RNA constitutes 80% of the total RNA:

A. mRNA

B. tRNA

C. rRNA

D. None of the above

Answer: C



Watch Video Solution

30. Who got noble prize for the finding of helical structure of DNA?

- A. Rosalind Franklin and Erwin Chargaff
- B. Maurice Wilkins and Rosalind Franklin
- C. James Watson and Francis Crick
- D. Robert Hooke and Robert Brown

Answer: C



Watch Video Solution

Other Important Questions Answers Answer The Following Short Answers

1. What is meant by cellular pool?



[Watch Video Solution](#)

2. What are Micro nutrients? Give any two examples.



[Watch Video Solution](#)

3. Mention any two properties of water.



Watch Video Solution

4. What are primary metabolites?



Watch Video Solution

5. Match the following:

<i>(i)</i> Enzymes	<i>(a)</i> Abrin
<i>(ii)</i> Amino acid	<i>(b)</i> Morphine
<i>(iii)</i> Alkaloids	<i>(c)</i> Peroxidase
<i>(iv)</i> Toxins	<i>(d)</i> Leucine

A. i-c, ii-d, iii-b, iv-a

B. i-d, ii-c, iii-b, iv-a

C. i-b, ii-a, iii-d, iv-c

D. i-c, ii-a, iii-d, iv-d

Answer:



Watch Video Solution

6. Write briefly about monosaccharide.



Watch Video Solution

7. What is a glycosidic bond?



Watch Video Solution

8. What is chitin?



Watch Video Solution

9. How do herbivores digest cellulose?



Watch Video Solution

10. What do you know about steroids?



Watch Video Solution

11. Define the term amphoteric.



Watch Video Solution

12. What do you know about primary structure of protein?



 [Watch Video Solution](#)

13. (i) What is an ionic bond?

(ii) Explain about the formation of ionic bond with a suitable example.



[Watch Video Solution](#)

14. Define anabolic reactions.



[Watch Video Solution](#)

15. Explain lock and key mechanism.



Watch Video Solution

16. What are competitive inhibitors?



Watch Video Solution

17. What is Nucleoside and Nucleotide?



Watch Video Solution

18. Mention any two sulphur containing amino acids.



Watch Video Solution

19. What is meant by Plectonemic coiling of DNA?



Watch Video Solution

20. Give a short note on tRNA.



[Watch Video Solution](#)

21. Explain Polysaccharide with an example.



[Watch Video Solution](#)

22. Describe the test for reducing sugars.



[Watch Video Solution](#)

23. What are triglycerides?



Watch Video Solution

24. Write down the properties of enzymes.



Watch Video Solution

25. What are Allosteric enzymes? Explain with suitable example.



Watch Video Solution

26. Distinguish between nucleosides and nucleotides.



Watch Video Solution

27. Explain ribosomal RNA. Add a note on its function.



Watch Video Solution

28. Explain the process of negative feedback inhibition with schematic diagram



View Text Solution

29. Explain the Michaelis-Menton Constant (K_m) with graphical representation.



Watch Video Solution

30. What are the three type of chemical bond in protein structure? Explain them with example.



Watch Video Solution

31. Describe the structure of protein with neat diagram.



Watch Video Solution

32. What are the types of cofactors? Explain each of them.



Watch Video Solution

33. Describe the structure of DNA as proposed by Watson and Crick.



Watch Video Solution

34. Explain any two factors affecting the rate of enzyme reaction, with the help of graphical representation



Watch Video Solution

35. Describe the structure and functions of various other polysaccharides.



Watch Video Solution