



BIOLOGY

BOOKS - VIKRAM PUBLICATION (ANDHRA PUBLICATION)

BIMOLECULES

Very Short Answer Type Questions

1. Medicines are either man made (i.e., synthetic) or obtained from living organisms

like plants, bacteria, animals etc. and hence the latter are called 'natural products. Sometimes natural products are chemically altered by man to reduce toxicity or side effects. Write against each of the following whether they were initially obtained as a natural product or as a synthetic chemical.

a) Penicillin_ b) Sulfonamide_ c) Vitamin C __. d)
Growth Hormone ___



Watch Video Solution

2. Select an appropriate chemical bond among ester bond, glycosidic bond, peptide bond and hydrogen bond and write against each of the following.

a) Polysaccharide_ b) Protein__ c) Fat_ d)
Water_



Watch Video Solution

3. Give one example for each of aminoacids, sugars, nucleotide and fatty acids.





[Watch Video Solution](#)

4. Explain the Zwitterionic form of an amino acid.



[Watch Video Solution](#)

5. What constituents of DNA are linked by glycosidic bond ?



[Watch Video Solution](#)

6. Glycine and Alanine are different with respect to one substituent on the alpha-carbon. What are the other common substituent groups ?



Watch Video Solution

7. Starch, Cellulose, Glycogen, Chitin are polysaccharides found among the following. Choose the one appropriate and write against each.

- a) Cotton fibre - b) Exoskeleton of cockroach _
c) Liver _ d) Peeled potato –



[Watch Video Solution](#)

8. What are primary and secondary metabolites ? Give examples?



[Watch Video Solution](#)

Short Answer Type Questions

1. Write a brief account on polysaccharides.



Watch Video Solution

2. Schematically represent primary, secondary and tertiary structures of a hypothetical polymer using protein as an example.



Watch Video Solution

3. Nucleic acids exhibits secondary structure.

Justify with example



Watch Video Solution

4. Can you describe what happens when milk is converted into curd or yoghurt from your understanding of proteins?



Watch Video Solution

5. Can you attempt building models of biomolecules using commercially available atomic models (Ball and Stick models).



[Watch Video Solution](#)

6. Attempt titrating an amino acid against a weak base and discover the number of dissociating (ionizable) functional groups in the amino acid.



[Watch Video Solution](#)

7. Draw the structure of the amino acid, alanine.



[Watch Video Solution](#)

8. What are gums made of? Is Fevicol different?



[Watch Video Solution](#)

9. Find out a qualitative test for proteins, fats and oils, amino acids and test any fruit juice, saliva, sweat and urine for them.



Watch Video Solution

10. Find out how much cellulose is made by all the plants in the biosphere and compare it with how much of paper is manufactured by man and hence what is the consumption of

plant material by man annually. What a loss of vegetation!



[Watch Video Solution](#)

11. All life forms exhibit 'unity in diversity'- Give reasons.



[View Text Solution](#)

Important Questions

1. Give one example for each of aminoacids, sugars, nucleotide and fatty acids.



[Watch Video Solution](#)

2. Explain the Zwitterionic form of an amino acid.



[Watch Video Solution](#)

3. Write a brief account on polysaccharides.



Watch Video Solution

4. Nucleic acids exhibits secondary structure.

Justify with example



Watch Video Solution