



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

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_

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3. Give one example for each of aminoacids,

sugars, nucleotide and fatty acids.





4. Explain the Zwitterionic form of an amino

acid.



5. What constituents of DNA are linked by

glycosidic bond ?

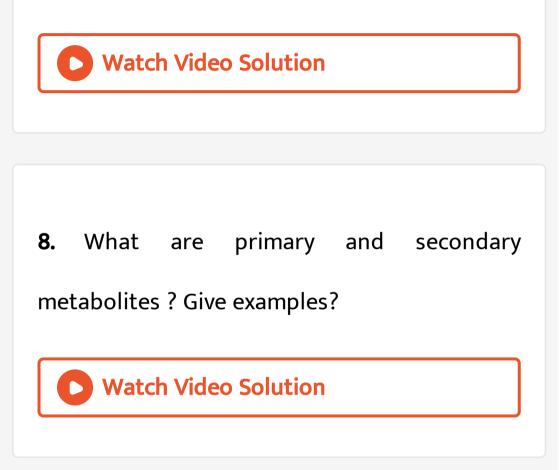
6. Glycine and Alanine are different with respect to one substituent on the alpha-carbon. What are the other common substituent groups ?

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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 -



Short Answer Type Questions

1. Write a brief account on polysaccharides.



2. Schematically represent primary, secondary

and teritiary structures of a hypothetical

polymer using protein as an example.



3. Nucleic acids exhibits secondary structure.

Justify with example

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

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



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



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



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

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

saliva, sweet and urine for them.



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!



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.



2. Explain the Zwitterionic form of an amino acid.



3. Write a brief account on polysaccharides.



4. Nucleic acids exhibits secondary structure.

Justify with example