

GOVERNMENT AUTONOMOUS COLLEGE, ROURKELA

DEPARTMENT OF BIOTECHNOLOGY

QUESTION BANK

PAPER- C6

TITLE: BIOCHEMISTRY

1. Fill in the blanks:

- a. pH is _____ dependent.
- b. _____ is dextrorotatory.
- c. _____ are simple sugar.
- d. Ionic product of water is _____ .
- e. Chirality of DNA is due to _____.
- f. Lateral diffusion of proteins in membrane can be followed and diffusion rate calculated by _____.
- g. Glycerol is added to protein solutions to stabilize the preparations by _____.
- h. _____ is favourable for protein folding.

2. Very short answers:

- a. Monosaccharides.
- b. Disaccharides.
- c. Polysaccharides.
- d. Mucopolysaccharides.
- e. Oxidative phosphorylation.
- f. Glycolipids.
- g. Sphingolipids.
- h. Apoenzyme.
- i. Cerebrosides.
- j. Nucleotides.

3. Short answer type questions:

- a. Bacterial cell wall polysaccharides.
- b. pH and buffers.
- c. Pyrimidines.
- d. Purines.
- e. Enzyme activity

- f. Beta-oxidation of fatty acids.
- g. Phospholipids

4. Long answer type questions:

- a. Describe the classification of carbohydrates.
- b. Describe the double helical structure of DNA.
- c. Describe the biological importance of nucleotides.
- d. Describe glycolysis.
- e. Describe TCA cycle.
- f. Describe pentose phosphate pathway.
- g. Describe gluconeogenesis.
- h. Describe amino acid structure.
- i. Describe lipid structure.