



Karanjia Auto College, Karanjia, Mayurbhanj

CC 14, CHEMISTRY HONS.

1. Answer all the questions

[1×8=8] i. What is alpha amino acid.

ii. Define allosteric effect of enzymes.

iii. Give an example of zwitter ion. iv.

What is glycosidic linkage.

v. Define saponification value of an oil.

vi. What is caloric value of food. vii. Give an example of basic dye. viii.

Write the five nitrogen bases present in DNA.

2. Answer any **Eight** questions

[1.5×8=12]

i. What is active site of an

enzyme. ii. What is zwitter ion. iii. Define

renaturation of protein.

iv. Define catabolism process of biomolecules. v.

Write the structure of Ibuprofen. vi. Define

denaturation of protein. vii. What is essential and non-

essential amino acids. viii. Give an example of stereo

specificity of an enzyme. ix. What is rancidity.

x. Give an example of purine base of nitrogen.

xi. Write use of chloramphenicol. xii. What is the use of antipyretic drug.

3. Answer any **Eight** the questions

[2×8=16]

i. Discuss electrophoresis process of amino acid.

ii. Synthesize a peptide molecule by protecting the N-terminal of the amino acid. iii. Discuss denaturation of protein with example. iv. Discuss salient features of active site of enzymes. v. Write synthesis of uracil.

vi. Write the difference between catabolism and anabolism process.

vii. Write synthesis of malachite green. viii. Write the synthesis of chloroquine.

ix. Write the difference between acid value and iodine number. x. Discuss uncompetitive enzyme inhibition. xi. Discuss the factors affecting enzyme action.

xii. Write the difference between nucleosides and nucleotides. xiii. Discuss the catabolic pathway of fat and protein.

Xiv. Write the medicinal values of azadirachtin. xv.

Write the synthesis of Ibuprofen.

4. Answer any **Four** questions

[4×6=24]

i. Discuss synthesis and applications of methyl orange and congo red.

ii. Discuss about glycolysis of carbohydrates. iii. Discuss solid phase synthesis of peptide. iv. Describe two methods of synthesis determination of primary structure of peptides. v.

Describe tertiary structure of proteins.

vi. Discuss the mechanism of enzyme action in brief taking trypsin as example.