

D 316

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2003.

Second Semester

Fashion Technology

CH 236 — ORGANIC CHEMISTRY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. How does fructose react with hydroxylamine?
2. How is Grignard reagent prepared?
3. Define free acid value of an oil.
4. How is Pyrrole converted into Pyrrole-2-aldehyde?
5. Give two example of mordants used in dyeing.
6. Give one example each of a globular protein and a fibrous protein.
7. Which is the parent compound of all sulphur drugs? What is its chemical name?
8. Name any two alcohols present in waxes in the combine state.
9. How is tetra hydro thiophene prepared?
10. Distinguish between sucrose and maltose.

PART B — (5 × 16 = 80 marks)

11. (i) Calculate the saponification value of the given sample of oil from the following data :
Wt. of the oil taken = 3 gms.
Strength of hydrochloric acid = 0.5 N
Volume of hydrochloric acid consumed in the blank titration = 50 ml
Volume of hydrochloric acid consumed by potassium hydroxide not consumed by the oil = 30 ml. (10)
- (ii) Name the four methods of separation of proteins and explain any one of them. (6)

12. (a) (i) Outline an evidence in favour of the size the ring in fructose. (8)
(ii) Outline the method of synthesis of artificial silk. (8)

Or

- (b) Write short note on : (4 × 4 = 16)
(i) Isoelectric point of a protein.
(ii) Millon's Test for proteins.
(iii) Glycoprotein.
(iv) Denaturation of proteins.

13. (a) (i) Write down the structural formulae of the following compounds :
Nicotinic acid, Furoin, N-acetyl indole and 2-Acetyl thiophene (6)
(ii) Describe Mannich reaction for Indole. (6)
(iii) How is Isoniazid prepared from Isonicotinic acid? (4)

Or

- (b) How are the following conversions carried out? Write down the formulae of the reactants and products? (4 × 4 = 16)
(i) Pyridine to 2-amino pyridine.
(ii) Pyrrole to 1-acetyl pyrrolidine.
(iii) Thiophene to 2-benzoyl thiophene.
(iv) Furfural to Furyl-2-cinnamic acid.

14. (a) How are Methyl Orange and Para Rosanilin prepared? How is Rosanilin converted into schiff's reagent? (8 + 6 + 2 = 16)

Or

- (b) (i) Define a reactive dye. (4)
(ii) What is meant by phthalein fusion? Give two example of phthalein dyes? (4 + 2 = 6)
(iii) Explain the terms : Chromophore and Auxochrome. Give one example for each. (2 + 2 + 1 + 1 = 6)

15. (a) (i) How is chloroquine synthesized? (8)
(ii) What type of antibacterial action sulphonamides exhibit? How is sulphanilamide synthesized from acetanilide? (2 + 6 = 8)

Or

- (b) (i) How are the following compounds prepared from C_2H_5MgI ? (3 × 3 = 9)
- (1) n-Propionic acid
 - (2) n-Propanol
 - (3) Dimethyl monoethyl carbinol.
- (ii) Write briefly on silicones. (7)
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