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Name.....Ankitha.....

Reg. No.....PGCA SECH008.....

**THIRD SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, DECEMBER 2010**

CH 09 304—ORGANIC CHEMISTRY

(2009 Admissions)

Time : Three Hours

Maximum : 70 Marks

Part A

*Answer all questions.
Each question carries 2 marks.*

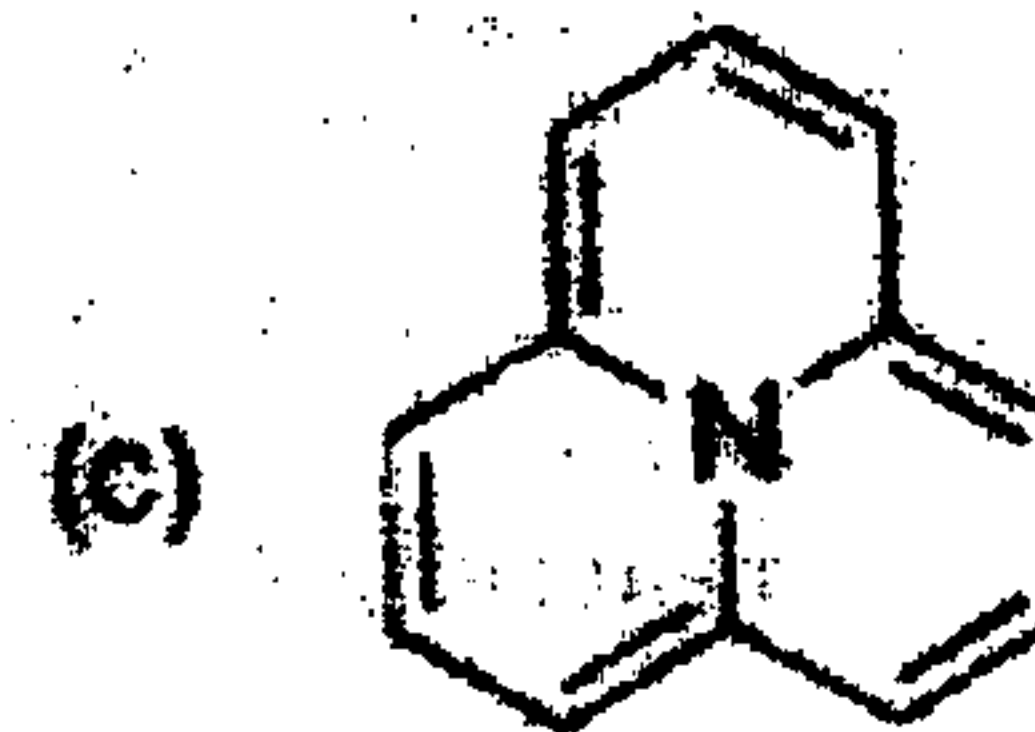
1. ✓ What is Fehling solution ?
2. ✓ How is ethylacetoacetic ester prepared ?
3. ✓ Explain diazotization reaction with example.
4. ✓ How do you classify terpenoids ?
5. ✓ How do you prepare Veronal and mention its use ?

(5 × 2 = 10 marks)

Part B

*Answer any four questions.
Each question carries 5 marks.*

6. ✓ Convert (i) ethyl alcohol to secondary butyl alcohol and (ii) acetaldehyde to tertbutyl alcohol using Grignard reagent.
7. ✓ (a) What is meant by salting out of proteins ?
(b) Explain Hopkin-Cole test with reaction.
8. ✓ Predict whether or not the following structures would show strong delocalization and stabilization (aromatic), weak stabilization by conjugation (nonaromatic), or strong destabilization (antiaromatic) relative to acyclic model structures. Explain the basis for your prediction :

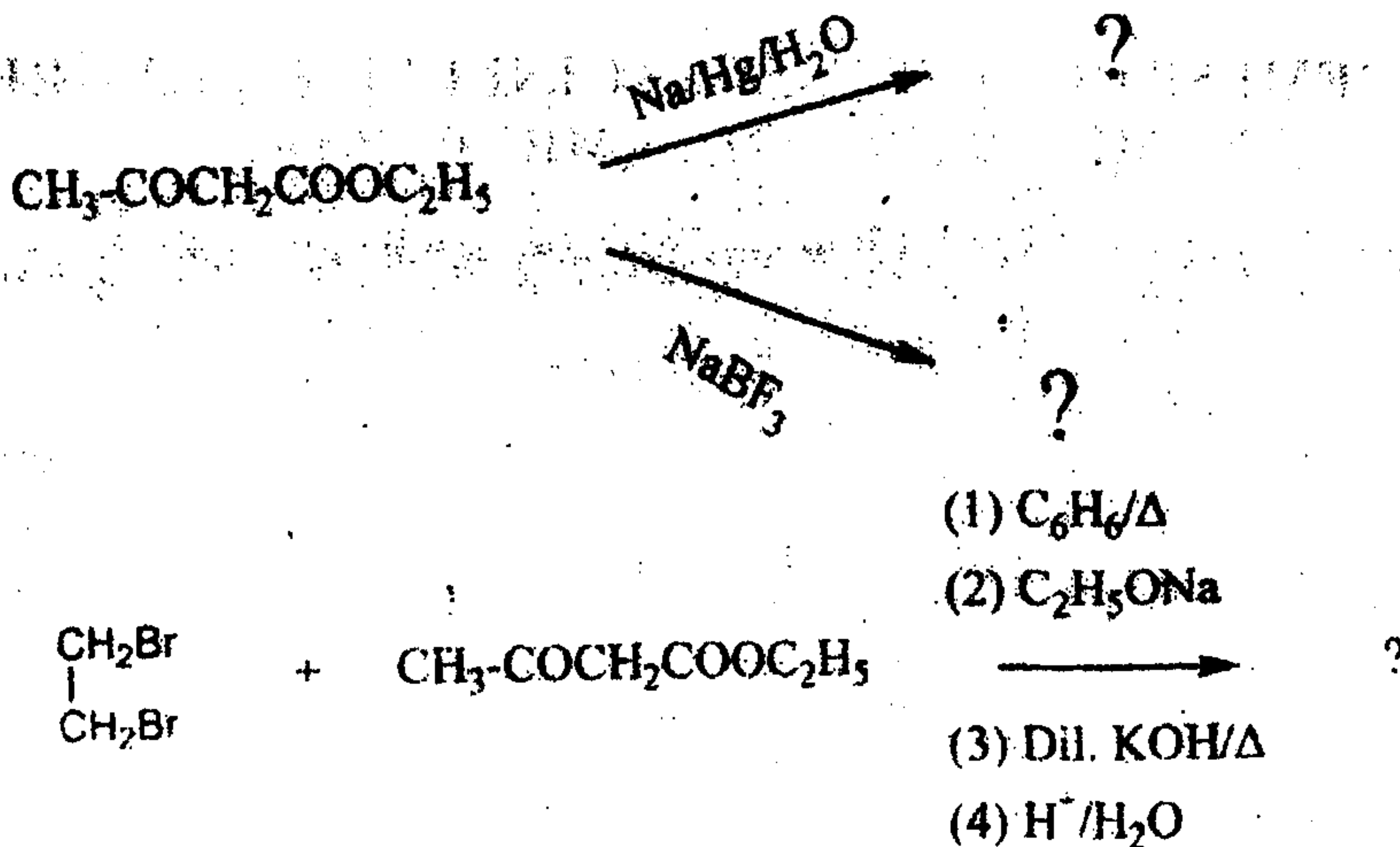


9. ✓ Explain (i) Gabriel phthalimide synthesis ; (ii) Strecker's synthesis.
10. ✓ How do you synthesize pyrrole by Páll Knorr synthesis and explain its acidic nature with suitable reactions ?

Turn over

11.

11. (a)



(4 × 5 = 20 marks)

Part C

Answer section (a) or section (b) of each question.
Each question carries 10 marks.

12. (a) (i) What is the role of stereo specificity in E₂ reactions?
(ii) Explain the potential energy diagram for S_N2 reaction.
(iii) What is Saytzeff rule explain with example?

Or

(b) Explain the parameters used in the analysis of oil and fats.

13. (a) How do you distinguish D-Glucose and D-Fructose explain with proper reactions.

Or

(b) What happens when glycine reacts with (i) Sangar's reagent ; (ii) Ninhydrin ; (iii) Nitrous acid ; and (iv) Benzoic acid.

14. (a) (i) Explain the mechanism of Friedel Crafts Alkylation of benzene with 1-chloro-2, 2-dimethyl propane. How do you prepare (ii) aniline ; (iii) pararosiline ; (iv) benzene diazonium chloride?

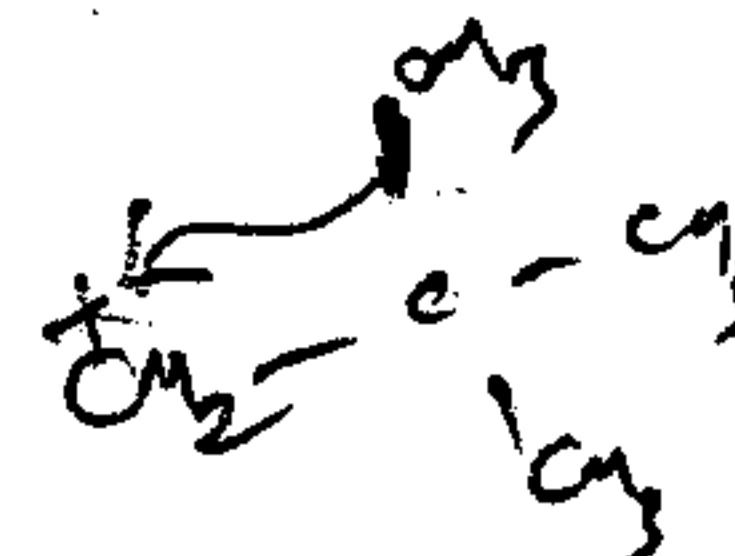
Or

(b) Write the following name reactions with examples (i) Reimer Tiemann Reaction ; (ii) Kolb's reaction ; and (iii) Ledrer-Manasse reactions.

15. (a) Explain the structural elucidation of citral.

Or

(b) Explain the structural elucidation of Vitamin C.



(4 × 10 = 40 marks)