

Roll No.

(07/20-I)

5254

B. Sc. EXAMINATION

(Sixth Semester)

CHEMISTRY

Paper-XX CH-306

Organic Chemistry

Time : Three Hours

Maximum Marks : 27

Note : Attempt *Five* questions in all, selecting *one* question from each Section. Q. No. 1 is compulsory.

(Compulsory Question)

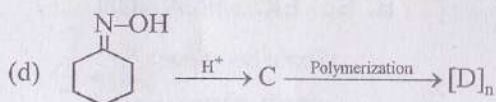
1. (a) Which of the following is a stronger acid ? 1

(i) $\text{C}_6\text{H}_5\text{SO}_3\text{H}$

(ii) $\text{C}_6\text{H}_5\text{COOH}$

(b) What are Sulphur Ylides ? Give *one* example. 1

(c) What are the advantages of Zeigler Natta Polymerisation ? 1

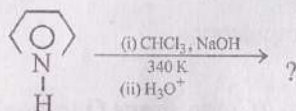


Identify C and D. 1

(e) Compare the basicity of pyrrole, pyridine and piperidine. 1

(f) What is meant by denaturation of proteins ? 1

(g) Complete the reaction : 1



Section A

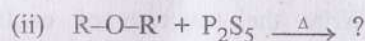
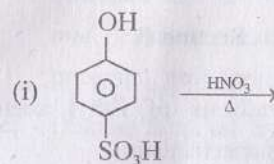
2. (a) Write the synthesis of Linear alkyl benzene sulphonate used as detergent. 1½

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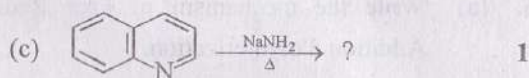
(b) How is Sulphaguanidine prepared ? 1½

(c) Complete the following reactions : 2



3. (a) Compare the aromatic character of Furan, Pyrrole and Thiophene. 2

(b) Describe Bischler-Napieralski Synthesis of Isoquinoline along with its mechanism. 2



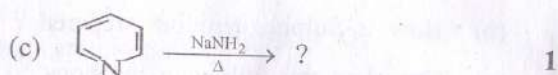
4. (a) Discuss Fisher-Indole synthesis for Indole derivatives. 2

(b) Pyridine though aromatic like benzene can undergo both Electrophilic and Nucleophilic substitution reactions easily while benzene undergoes exclusively electrophilic substitution reaction. Explain. 2

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P.T.O.



Section B

5. (a) Give synthesis of Ethyl acetoacetate. Write its mechanism. 2
- (b) Write the structure of enolate ions obtained from Malonic ester and acetoacetic ester. 1
- (c) Write a short note on Keto-enol tautomerism of acetoacetic ester. 2
6. (a) Write the mechanism of Free Radical Addition Polymerization. 2
- (b) Give the method of preparation of the following polymers : 1
 - (i) Nylon-6
 - (ii) PAN.
- (c) What is Vulcanization ? How does vulcanization improve the quality of Natural and Synthetic Rubbers ? 2
7. (a) Explain Solid Phase Peptide Synthesis. 2
- (b) What is meant by β -Pleated Sheet Structure and α -Helix Structure ? Give one example each of a substance possessing this structure. 2
- (c) Discuss Strecker Synthesis of Glycine. 1