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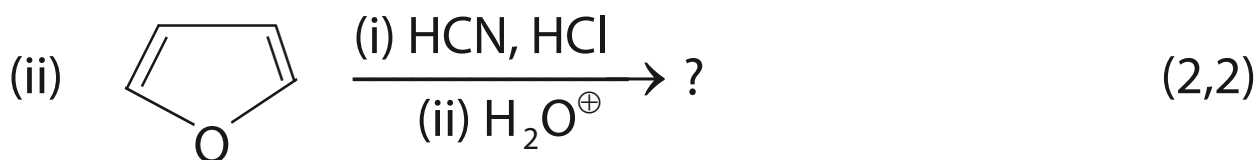
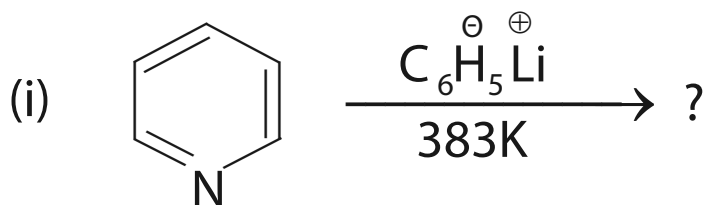
CS-2058
ORGANIC CHEMISTRY-II
(Common for B.Sc., B.Sc. Biotech.)
(Semester-VI)

Time Allowed : 3 Hours]**[Maximum Marks : 26**

Note :- Attempt two questions each from Section A and B carrying 4 marks each, and the entire Section C consisting of 5 short answer type questions carrying 2 marks each.

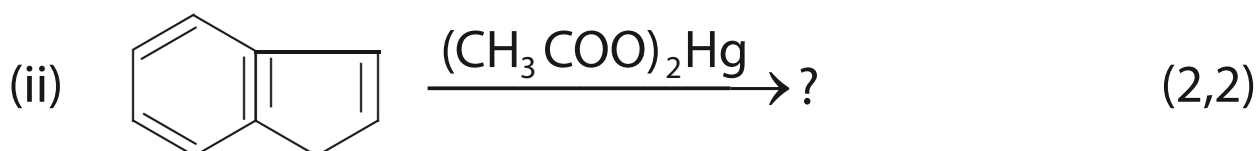
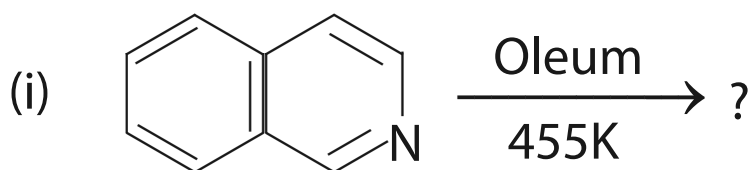
SECTION-A

- I. (a) Explain why are Pyrrole, Thiophene and Furan classified as aromatics ?
- (b) Complete the following reactions giving mechanism :



(2,2)

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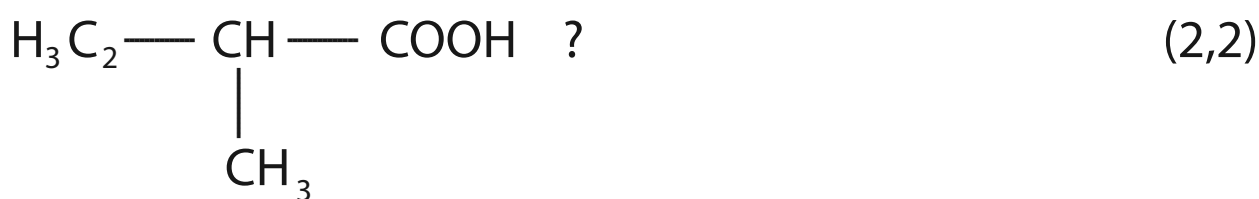


III. What are Inhibitors ? Give the preparation and uses of

(i) Neoprene, and (ii) PVC. (4)

IV. (a) What are Enamines ? Draw the structure of enamine formed between Piperidine and Cyclohexanone How will you alkylate it ?

(b) Starting from Malonic ester how will you synthesize



SECTION-B

V. (a) Describe briefly the Killiani-Fischer synthesis for lengthening the carbon chain of aldoses by one carbon atom.

(b) Prefix D- is given to fructose even though it is Laevorotatory. (3,1)

- VI. What are Disaccharides ? Discuss briefly the structure of Maltose and Lactose, and draw the structure. (4)
- VII. (a) Write a short note on Iso-electric point.
- (b) Sketch the mechanism for the transformation of Isobutyl alcohol to Leucine. (2,2)
- VIII. (a) What are Conjugated proteins ? How are they classified.
- (b) What are Nucleic acids ? Give the difference between DNA and RNA. (2,2)

SECTION-C

- IX. Answer all the following :
- (a) Out of two which one is more basic, and why ?
(i) Pyridine, and (ii) Pyrrole.
- (b) What is the difference between two notations Nylon-6 and Nylon-6,6 ? Give one example in each case.
- (c) What is the difference between Erythrose and Threose ? Give one example in each case.
- (d) Write the structure of Alanine at pH = 3 and pH = 10.
- (e) In what way Nucleotide is different from Nucleoside ? Give one example in each case.
- (2x5=10)