

Code No: 221AD

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDER

B. Pharmacy I Year Examinations, August/September-2017

PHARMACEUTICAL ORGANIC CHEMISTRY - I

Time: 3 hours

Max. Marks: 75

**Note:** This question paper contains two parts A and B. Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART-A**

(25 Marks)

- a) What is Mesomeric effect? [2]
- b) Explain about stable conformations of cyclohexane with reasoning? [3]
- c) What is Huckel's rule? [2]
- d) Write note on nomenclature of benzene derivatives with example? [3]
- e) Write the Saytzeff's rule? [2]
- f) Discuss the rate limiting steps that play role in SN1 and SN2 reactions? [3]
- g) Write the hydrolysis reaction of acid chlorides? [2]
- h) Write the aldol condensation reaction? [3]
- i) Write the classification of amines? [2]
- j) Write about reactivity of nitriles and isonitriles? [3]

**PART-B**

(50 Marks)

2. What is isomerism? Write about chain, conformational and geometrical isomers with suitable examples? [10]

OR

- 3.a) Write electrophilic addition reactions of alkenes? [5+5]  
b) Explain cis-hydroxylation and polymerization reactions of alkenes? [10]

4. Write the characteristic reactions of benzenes? [10]

OR

5. Write the substitution reactions of halobenzenes? [10]

6. Write the Kolbe-Schmidt reaction stability of conjugated dienes and Fries rearrangement of phenols? [10]

OR

- 7.a) Write general method of preparation of halogen compounds? [5+5]

- b) Write note on reactivity of alcohols?

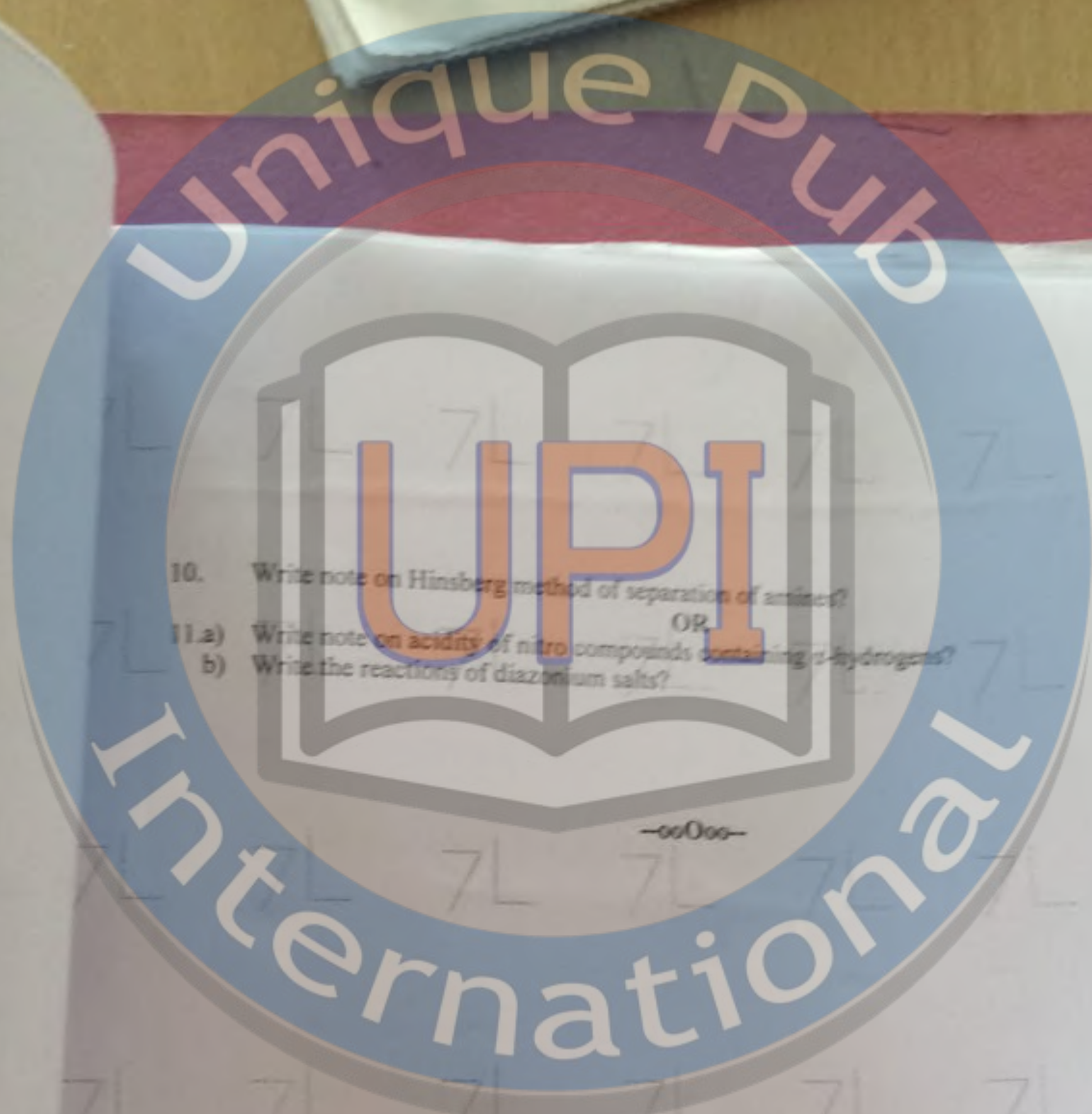
- 8.a) Write the preparation methods of carbonyl compounds? ( $\rightarrow C=O$ ) [5+5]

- b) Write note on Oppenauer oxidation?

OR

- 9.a) Write note on Hofmann's degradation of amides? [5+5]

- b) Discuss preparation of malonic acid esters?



10. Write note on Hinsberg method of separation of amines? [10]

OR

11.a) Write note on acidity of nitro compounds containing  $\alpha$ -hydrogens? [5]

b) Write the reactions of diazonium salts? [5]

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