

B.Sc. DEGREE EXAMINATION —  
JUNE, 2019.

Second Year

Chemistry

Paper I – GENERAL CHEMISTRY – III

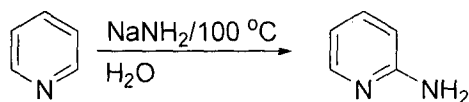
Time : 3 hours

Maximum marks : 75

PART A — ( $3 \times 5 = 15$  marks)

Answer any THREE questions.

1. Write a short note on  $\text{Na}^+/\text{K}^+$  pump in biological system.
2. Write the properties of Boron and their uses.
3. Identify the name of the reaction. Explain the mechanism.



4. Define order and molecularity of the reaction. Write the difference between them.
5. What is isoprene rule? How it's useful for structural prediction?

PART B — ( $4 \times 15 = 60$  marks)

Answer any FOUR questions.

6. Why the properties of lithium is similar with other members of the family? Explain the similarities.
7. What is borazine? Compare the structure and reactivity of borazine with graphite and benzene.
8. Why aromatic nucleophilic substitution reaction is difficult than aliphatic nucleophilic substitution. Justify explain the characteristics and mechanism of benzyne intermediate.
9. Describe the postulates of collision theory and explain the bi-molecular reaction.
10. Elucidate the structure and synthesis of nicotine.

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