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SUBJECT CODE NO: - BNP-2561
FACULTY OF SCIENCE AND TECHNOLOGY
BSc. F.Y.(SEM-I)(CBCGS NEP) Chemistry
Examination November / December 2024
Chemistry Fundamentals of Chemistry- I (DSC-1)

[Time: 1:00 Hours]**[Max. Marks: 30]**

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions.
- 2) Figures to the right indicate full marks.
- 3) Use of non- programmable calculator is allowed.

Part- A**Q.1 Attempt all questions****10**

1. State Hund's rule of maximum multiplicity
2. What are the two types of band cleavage?
3. State first law of thermodynamics with its mathematical equation.
4. Define inductive effect
5. Give the electronic configuration of chromium. (Cr)

**Part- B****Q.2 Attempt any four of the following****20**

1. What are quantum numbers? Explain principal quantum number
2. Define Carbene. Give any two methods of its preparation.
3. Explain Carnot's cycle
4. Write a note on Strength of organic acids and bases. Explain factors affecting strength of acids and bases.
5. Define ionization potential. Explain the trends of ionisation potential in periodic table.
6. State and explain the relation between K_c and K_p .