

**PR XII (01) 18**  
**CHEMISTRY (New)**  
**Inter Part-II**  
**(Fresh/Reappear)**

**Note:** Time allowed for Section – B and Section – C is 2 Hours and 40 minutes.

**Section – B**

**Marks: 40**

**Q-II** Answer any TEN parts. Each part carries FOUR marks.

1. How alkali metals react with oxygen?
2. Explain the amphoteric nature of  $\text{Be}(\text{OH})_2$
3. Discuss the binding energy of transition elements.
4. Describe the test for detection of halogens in a given organic compound.
5. Write a note on natural gas.
6. What is bleaching powder? Explain its bleaching action.
7. Differentiate between electrophile and nucleophile by giving examples.
8. Why aliphatic amines are stronger bases than  $\text{NH}_3$ ?
9. Acetic acid is sometimes known as glacial acetic acid. Why?
10. Give the names of derivatives of carboxylic acids with their functional groups.
11. Draw the open and cyclic structures of glucose.
12. What are carbocations? Give their types.
13. Write a note on Troposphere.

**Section – C**

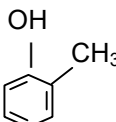
**Marks: 27**

**Note :** Attempt any THREE questions. All questions carry equal marks.

- Q-III** (a) Give the reactions of normal oxide, peroxide and superoxide of alkali metals with water and die. HCl (4 ½ )  
(b) Explain the coloured nature of transition metal complexes. (4 ½ )
- Q-IV** (a) Describe two methods for the preparation of alkenes. (4)  
(b) Which tests can be used for differentiating aldehydes from ketones? (5)
- Q-V** (a) Give IUPAC names. (5)
- i.

$$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_3 - \text{C} - \text{OH} \\ | \\ \text{CH}_3 \end{array}$$

ii.


- iii.

$$\begin{array}{c} \text{O} \\ || \\ \text{CH}_3 - \text{C} - \text{Cl} \end{array}$$

iv.

$$\begin{array}{c} \text{O} \\ || \\ \text{H} - \text{C} - \text{H} \end{array}$$
- v.

$$\begin{array}{c} \text{O} \quad \text{O} \\ || \quad || \\ \text{CH}_3 - \text{C} - \text{C} - \text{CH}_3 \end{array}$$

(b) Give the reactions of phenol with. (4)

  - i. Sodium metal
  - ii. Conc.  $\text{HNO}_3$
- Q-VI** (a) Discuss the effect of substituent on the reactivity of benzene ring. (5)  
(b) Why modern methods of analysis are superior over the classical ones? (4)