

9. METALS AND NON-METALS

| Q. No | Question | Marks |
|--|---|-------|
| Multiple Choice Question | | |
| Q.31 | <p>In which of the following forms do electrovalent compounds conduct electricity?</p> <p>A. only in solid form</p> <p>B. both in solid form and in aqueous solution</p> <p>C. both in aqueous solution and in molten form</p> <p>D. in solid form, molten form and in aqueous solution</p> | 1 |
| Free Response Question/ Subjective Question | | |
| Q.32 | <div data-bbox="284 873 1311 1366"> <p>The diagram illustrates a glass-lined reactor. The left side shows an 'Outside view of reactor' with labels for the 'Motor of stirrer', 'Opening for adding chemicals', and 'Outside iron body of reactor'. The right side shows a 'Cross section view of reactor' with labels for the 'Inside glass lining', 'Outside iron body of reactor', and 'Stirrer'.</p> </div> <p>Many chemical reactions like the one shown below, are carried out in glass-lined, iron chemical reactors instead of directly in iron reactors.</p> $\text{CH}_3\text{COOH} + \text{CH}_3\text{CH}_2\text{OH} \xrightarrow{\text{Sulphuric acid}} \text{CH}_3\text{COOCH}_2\text{CH}_3$ <p>State one advantage of carrying out the reaction in a glass-lined reactor instead of directly in an iron reactor.</p> | 1 |

Answer Key & Marking Scheme

| Q. No | Answers | Marks |
|-------|---|-------|
| Q.31 | C. both in aqueous solution and in molten form | 1 |
| Q.32 | 1 mark for any one of the following: - no corrosion of the reactor - no contamination of the product with metal / metal salts | 1 |