1. (c) $C_{12}H_{22}O_{11}$ is a sugar and non-electrolyte.

2. (b) It is a weak electrolyte since it is slightly ionized.

3. (b) It is a weak electrolyte since slightly ionized.

4. (b) Because the degree of dissociation is inversely proportional to the concentration of the electrolyte.

5. (b) Electrolytes are those substances which on dissolving in water give ions.

6. (a) $K = \frac{\alpha^2 C}{1-\alpha}; \alpha = \frac{0.01}{100} \approx 1 \therefore K = \alpha^2 C = \left[\frac{0.01}{100}\right]^2 \times 1$

   $= \mathbf{1 \times 10^{-8}}$.

7. (b) As $NaCl$ ionises completely to yield free ions.

8. (d) $CH_3COONa \rightleftharpoons CH_3COO^- + Na^+$

   $H_2O \rightleftharpoons H^+ + OH^-$

   $CH_3COOH + NaOH$

9. (a) $NaCl$, being a salt, is a strong electrolyte.

10. (a) We can determine by measurement of very dilute *HF* solutions.

11. (c) According to the Ostwald's dilution formula $\alpha^2 = \frac{K(1-\alpha)}{C}$. But for weak electrolytes α is very small. So that $(1-\alpha)$ can be neglected. So that $\alpha = \sqrt{\frac{K_a}{C}}$.

12. (d) Arrhenius proposed the theory of ionisation.

13. (b) higher the dielectric constant of a solvent more of its ionising power.

14. (b) $\alpha \propto$dilution of solution.

15. (d) Generally ionic compound are conduct electricity in fused state.

16. (d) According to Ostwald's dilution law because degree of ionization is directly proportional to the dilution.

17. (b) The degree of ionisation of a solute depends upon its nature, concentration, and temperature.

18. (b) Mathematical form of Ostwald's dilution law.

19. (c) It is a weak electrolyte because it's ionization is very less.

20. (c) When we add NH_4OHin NH_4Clsolution ionization of NH_4OH is decreased due to common ion effect.