

(c) Temperature (d) reaction time

**Section-B**

**(Short Questions)**

**Note:** Answer any 09 questions of the following:

- Q 2: Define rounding of data give various rules of rounding fo data.
- Q:3 What is gram molecular mass?
- Q 4: Explain why the filling of electrons in as orbital takes place prior 3d?
- Q 5: Write down the electronic configuration of the following.;
- (i) Fe (Z=26) (ii) Br<sup>-</sup> (z=35) (iii) Ca<sup>2+</sup> (z=20)
- (ii) Br<sup>-</sup> (z=35)
- Q 6: The Dipole moment of water is 1.85 D but CO<sub>2</sub> has zero dipole mement why?
- Q 7: Define Isotropy. Which type of solids have this property?
- Q 8: What is transition temperature? Explain with examples.
- Q 9: What is Salt? Explain acidic, Basic and neutral salts?
- Q10: Name various units of concentration and explain mole fraction?
- Q 11: What is transition temperature? Explain with examples.
- Q:12 Give three properties of each  $\alpha$ ,  $\beta$  and  $\gamma$  rays.
- Q 13: What is meant by diffusion and effusion?

**Section-C**

**(Descriptive Question)**

**Note:** Answer any 03 question of the following:

- Q 14: (a) Define theoretical yield, actual yield and percent yield. why the practical yield is often less
- (b) Amonia gas can be produced by heating together the solid and NH<sub>4</sub>cl and (OH) 2NH<sub>4</sub>cl + ca(oH)<sub>2</sub> → 2NH<sub>3</sub>+CaCl<sub>2</sub>+2H<sub>2</sub>O
- Q.15 Silver Sulphide (Ag<sub>2</sub>S)is an anti microbial. In experiment 24.8g Ag<sub>2</sub>Sis reacted with the excess of hydrochloric acid .....
- Q 16: Describe hydrogen bonding iin water and explain the anomalous behavior of water due to hydrogen bonding?
- (b) The PH of solution 25°C is 4.82, calculate its hydrogen ion concentration.
- Q 17: what is surface tension, Explain it with example. Give its unint and describe the factors that affect on surface tension of liquids?
- Q 18: How can ideal gas is differentiated from real gas? What are the causes of deviation of real gas from ideal behavior? Explain theis deviation at low temperature and high pressure ?