**128.** **[A]**

$$u = \sqrt{\frac{3P}{d}}$$

**129.** **[C]**

$$KE = \frac{3}{2}nRT$$

**130.** **[B]**

$$r \propto \frac{1}{\sqrt{M}}$$

**131.** **[D]**
Ideal gas can't be liquefied.

**132.** **[B]**

$$W_{rev.} \ -nRT \ \ell n \ \frac{P_1}{P_2}$$

**133.** **[A]**
$\Delta H_{diss.} = \Delta H_L + \Delta H_{Hyd.}$
$= 778 + (-774.3) = 3.7 \ kJ$
$\Delta G_{diss.} = \Delta H_{diss.} \ - T \ \Delta S_{diss}$

**134.** **[D]**
Factual

**135.** **[C]**
$\Delta H_r = \Sigma(B.E)_R - \Sigma(B.E)_P$

**136.** **[C]**

$$K = \frac{K_f}{K_b}$$

**137.** **[C]**

$$K = \frac{[PCl_3][Cl_2]}{[PCl_5]}$$

**138.** **[A]**
$K_p = K_c(RT)^{\Delta n}g$

**139.** **[B]**

$$\frac{1}{K} = \frac{1}{0.025} = 40$$

**140.** **[B]**

$$\frac{\text{st. of } HA_1}{\text{st. of } HA_2} = \sqrt{\frac{K_{a_1}}{K_{a_2}}}$$

**141.** **[D]**
$K_{sp} = 4s^3$

**142.** **[B]**

$$K_b = \frac{K_w}{K_a} = \frac{10^{-14}}{10^{-5}} = 10^{-9}$$

**143.** **[B]**

$$pH = pK_a + \log\frac{[Salt]}{[Acid]}$$

**144.** **[C]**
$[OH^-] = C\alpha$

**145.** **[B]**

$$r_+ + r_- = \frac{a\sqrt{3}}{2}$$
$$2r_- = a$$

**146.** **[B]**
Volume of autric cell $= (200 \times 10^{-10})^3 \ cm^3$
$= 8 \times 10^{-24} \ cm^3$

**147.** **[C]**

**148.** **[A]**
$t_{1/2} \uparrow$ as conc. $\uparrow$
zero order
Intercept = 0
$= \log 2K = 0$
$2k = 1$
$k = 1/2$

**149.** **[B]**
Conc. become 10 times rate become 100 times
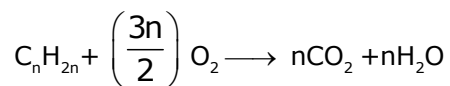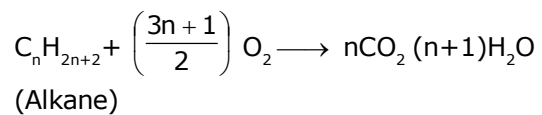which means order with respect to $[H^+]$ is 2.

**150.** **[D]**

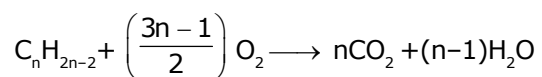All members of any class of hydrcarbon do not have same empirical formula.

**151.** **[C]**

All moles remains constant vapour density remains constant.

**152.** **[C]**

$$C_nH_{2n+2} + \left(\frac{3n+1}{2}\right) O_2 \longrightarrow nCO_2\ (n+1)H_2O$$

(Alkane)

$$C_nH_{2n} + \left(\frac{3n}{2}\right) O_2 \longrightarrow nCO_2 + nH_2O$$

(Alkane)

$$C_nH_{2n-2} + \left(\frac{3n-1}{2}\right) O_2 \longrightarrow nCO_2 + (n-1)H_2O$$

(Alkane)

moles of hydrocarbon < moles of $O_2$

**153.** **[A]**

Boyle temperature of hydrogen and helium gases are less than 273 K.