



# DIRECTORATE OF SCHOOL EDUCATION TAMILNADU

<b>12NPCBW2 (2023-24)</b>	<b>NEET - WEEKLY TEST 2</b>	<b>Class : XII Time : 1.40 hrs Total Marks : 400</b>
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## Answer key

### 12th - CHEMISTRY

26. Ans : A)

$$K_c = \frac{[NO]^2[O_2]}{[NO_2]^2} = 1.5 \times 10^{-5}$$

$$K_c^1 = \frac{[NO_2]}{[NO][O_2]^{1/2}} = \frac{1}{K_c^{1/2}} = \frac{1}{(1.5 \times 10^{-5})^{1/2}}$$
$$= 2.582 \times 10^2$$

27. Ans : D)

Assertion is wrong statement but reason is correct statement

28. Ans : C)

Increase in temperature

Hint : Endothermic process

29. Ans : C)

$$p^H = 3, [H^+] = 10^{-3} \text{ in 1L}$$

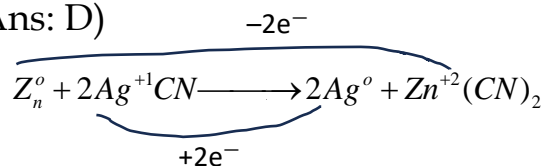
$$\text{In 250 ml, No of moles of } H^+ \text{ ions} = \frac{250 \times 10^{-3}}{1000} = 2.5 \times 10^{-4}$$

$$\text{No of } H^+ \text{ ions} = 6.023 \times 10^{23} \times 2.5 \times 10^{-4} = 1.506 \times 10^{20}$$

30. Ans : D)

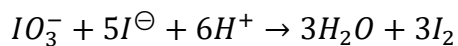
Either acidic or basic

31. Ans: D)



32. Ans: A)

5, 6, 3, 3



33. Ans: B)

0.1 M HCl solution

Hint : Conductivity is higher for strong Electrolytes,  
conductivity decreases with dilution

34. Ans: A)

Both A and R are true and R is the correct explanation of A

35. Ans: D) 1.212 V

36. Ans: C)

Activation energy

37. Ans: C) 0

38. Ans: D) 602 S

39. Ans: A)

$$3 \times 10^{-4} \text{ mol.L}^{-1} \text{ S}^{-1}$$

Hint

$$-\frac{1}{3} \frac{d[H_2]}{dt} = +\frac{1}{2} \frac{d[NH_2]}{dt}$$

$$\frac{-d[H_2]}{dt} = \frac{3}{2} \times 2 \times 10^{-4}$$

$$= 3 \times 10^{-4} \text{ mol.L}^{-1} \text{ S}^{-1}$$

40. Ans: D) 347 S

$$\text{rate} = K[A]$$

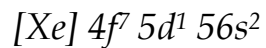
$$K = 2.0 \times 10^{-3} \text{ S}^{-1}$$

$$t_{\frac{1}{2}} = \frac{0.693}{2.0 \times 10^{-3}} = 346.5 = 347 \text{ S}$$

41. Ans: C

*Cl, Br, I*

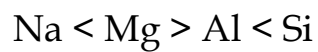
42. Ans : C



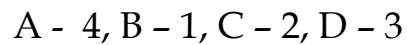
43. Ans: D

Only III & IV

44. Ans: A)



45. Ans : D)



46. Ans : A)  $\text{SnO}_2$

47. Ans: C)  $\text{HNO}_3, \text{NO}, \text{N}_2, \text{NH}_4\text{Cl}$

Hint +5, +2, 0, -3

48. Ans: B)  $\text{H}_2\text{Po} < \text{H}_2\text{Te} < \text{H}_2\text{Se} < \text{H}_2\text{S} < \text{H}_2\text{O}$

49. Ans : A)  $\text{HClO} < \text{HClO}_2 < \text{HClO}_3 < \text{HClO}_4$

50. Ans : C)  $\text{IBr}_2^-, \text{XeF}_2$

Hint =>  $7 + 14 + 1 = 22 \rightarrow \text{IBr}_2^-$  (linear)

$8 + 14 = 22 \rightarrow \text{XeF}_2$  (linear)