

CHEMISTRY

1-Which of the following is a noble gas?

A- Neon

2-Atomic number represents:

A - Protons

3- pH of neutral solution is:

A - 7

4-Which bond is strongest?

A - Covalent

5-Avogadro number is:

A - 6.022×10^{23}

6-Which is an alkali metal?

A - sodium

7-Molar mass of H_2O :

A - 18

8-Which is acidic?

A- HCl

9-Electron charge is:

A - -1

10 - Which is a hydrocarbon?

A - CH_4

11-Periodic table is arranged by:

A - Atomic number

12-Which gas is used in balloons?

A - Helium

13-Oxidation is:

A- Loss of electrons

14 - Which is a base?

A- NaOH

15- Chemical formula of ammonia:

A- NH_3

16-Which element is liquid at room temp?

A - Mercury

17 -Valency of oxygen:

A - 2

18 -Which is organic compound?

A- CH_4

19 -Which is strongest acid?

A - HCl

20 - Symbol of potassium:

A - K

21 - Atomic radius decreases across a period because:

A- Increase in nuclear charges

22 - Which has highest electronegativity?

A- F

23 -Hybridization of methane:

A- sp^3

24 - Shape of NH_3 :

A- Trigonal pyramidal

25 - Which is strongest acid?

A- HI

26 - Bond order of O_2 :

A - 2

27 - pH of strong acid:

A - <7

28 - Which is amphoteric?

A - Al_2O_3

29 - Oxidation number of S in H_2SO_4 :

A - +6

30 - Which gas shows maximum deviation?

A - NH_3

31 - Rate of reaction depends on:

A - Temperature, concentration, catalyst

32 - Unit of rate constant (1st order):

A - s^{-1}

33 - Which is not colligative property?

A - density

34 - Faraday constant \approx

A - 96500 C

35 - Which is reducing agent?

A - Loses electrons

36 - Which is aromatic?

A - Benzene

37 - Functional group of alcohol:

A - $-\text{OH}$

38 - IUPAC name of CH_4 :

A - Methane

39 - Which shows isomerism?

A - C_4H_{10}

40 - Which reaction is addition?

A - Alkene \rightarrow Alkane

41 - Which has highest boiling point?

A - H_2O

42 - Hydrogen bonding strongest in:

A - HF

43 - Which is electrolyte?

A - NaCl

44 - Molarity depends on:

A - Temperature

45 - Which law: $P_1V_1 = P_2V_2$

A - Boyle

46 - Which is buffer solution?

A - $\text{CH}_3\text{COOH} + \text{CH}_3\text{COONa}$

47 - Catalyst changes:

A - rate

48 - Which is strongest base?

A - NaOH

49 - Which compound has π bond?

A - Ethene

50 - Which metal is liquid?

A - Hg

51 - Which is transition metal?

A - Fe

52 - Which is noble gas?

A - He

53 - Which has highest ionization energy?

A - Ar

54 - Which is oxidizing agent?

A - Gains electrons

55 - Which is saturated hydrocarbon?

A - Alkane

56 - Which gas is greenhouse gas?

A- CO_2

57 - Which acid is organic?

A- CH_3COOH

58 - Which shows hydrogen bonding?

A - NH_3

59 - Which is strongest intermolecular force?

A - Ion -dipole

60 - Which is biodegradable?

A - paper

61 - Which is polymer?

A - Polyethylene

62 - Which vitamin contains cobalt?

A - B_{12}

63 - Which is alloy?

A - steel

64 - Which is exothermic?

A - Respiration

65 -Which is endothermic?

A - photosynthesis

66 - Which is acid-base reaction?

A - Neutralization

67 - Which compound is ketone?

A - CH_3COCH_3

68 - Which compound is aldehyde?

A - CH_3CHO

69 - Which is primary alcohol?

A - CH_3OH

70 - Which is strongest oxidizing agent?

A - F₂

71 - Which is ideal gas condition?

A - Low P, high T

72 - Which has maximum entropy?

A - Gas

73 - Which is spontaneous?

A - $\Delta G < 0$

74 - Which is Lewis acid?

A - BF₃

75 - Which is Lewis base?

A - NH₃

76 - Which reaction is redox?

A - Combustion

77 - Which is unsaturated?

A - Ethene

78 - Which has highest bond energy?

A - Triple

79 - Which is electrolyte in water?

A - NaCl

80 - Which is strongest intermolecular attraction?

A - ionic

81 - A: Atomic size decreases across period

R: Nuclear charge increase

A - Both true, R correct explanation

82 - A: Noble gases are inert

R: They have complete valence shell

A - Both true, R correct explanation

83 - A: Ionic compounds conduct electricity in molten state

R: Ions are free

A - Both true, R correct explanation

84 - A: Covalent compounds have low melting point

R: Weak intermolecular forces

Both true, R correct explanation

85 - A: HF is weaker acid than HCl

R: H-F bond is strong

A - Both true, R correct explanation

86 - A: Catalyst increases rate

R: Lowers activation energy

A - Both true, R correct explanation

87 - A: Endothermic reaction absorbs heat

R: ΔH positive

A - Both true, R correct explanation

88 - A: Strong acids fully ionize

R: High K_a

A - Both true, R correct explanation

89 - A: Alkene more reactive than alkane

R: Presence of π bond

A - Both true, R correct explanation

90 - A: Benzene is stable

R: Resonance stabilization

A - Both true, R correct explanation

91 - A: Water has high boiling point

R: Hydrogen bonding

A - Both true, R correct explanation

92 - A: Pressure increases \rightarrow volume decreases

R: Boyle's law

A - Both true, R correct explanation

93 - A: Oxidation is loss of electrons

R: Reduction is gain of electrons

A- Both true, R not explanation

94 - A: NaCl dissolves in water

R: Polar nature of water

A - Both true, R correct explanation

95 - A: pH of strong acid is low

R: High H^+ concentration

A - Both true, R correct explanation

96 - A: Metals conduct electricity

R: Free electrons

A - Both true, R correct explanation

97 - A: Increasing temperature increases rate

R: More collisions

A - Both true, R correct explanation

98 - A: Gases are compressible

R: Large intermolecular space

A - Both true, R correct explanation

99 - A: Alcohols form hydrogen bonds

R: $-OH$ group present

A - Both true, R correct explanation

100 - A: Electrolysis needs electricity

R: Redox reaction occurs

A - Both true, R not explanation