

General Science Model Test Questions 12 With Answers [Chemistry - 1]

1. Zinc is not present in
(A) Brass **(B) Bronze** (C) Solder (D) German silver
2. Dynamite was invented by
(A) Edison (B) Fleming **(C) Nobel** (D) Bell
3. Periodic table was given by
(A) Faraday **(B) Mendeleev** (C) Arrhenius (D) Lavoisier
4. Reduction is addition of
(A) Hydrogen (B) Water (C) Oxygen (D) Benzene
5. The galvanized iron pipes are coated with
(A) Tin (B) Lead (C) Copper **(D) Zinc**
6. Which one of the following is a mixture?
(A) Lime (B) Table salt (C) Sugar **(D) Sea water**
7. The correct sequence in decreasing order of the proportion of the given gases in the atmosphere is
(A) Argon, Carbon-di-oxide, oxygen (B) Carbon-di-oxide, Oxygen, Argon
(C) Oxygen, Argon, Carbon-di-oxide (D) Argon, Oxygen, Carbon-di-oxide
8. Non-stick kitchen wares are coated with
(A) PVC (B) Graphite **(C) Teflon** (D) Silicon
9. Gobar gas mainly contains
(A) Carbon-di-oxide (B) Carbon monoxide
(C) Hydrogen sulphide **(D) Methane**
10. The chief constituent of vinegar is
(A) Formic acid **(B) Acetic acid**
(C) salicylic acid (D) Oxalic acid
11. The fibre least prone to catch fire is
(A) Nylon (B) Polyester **(C) Cotton** (D) Terylene

12. Setting of plaster of Paris involves
- (A) Dehydration process (B) Hydration to form other hydrates
- (C) Oxidation process (D) Reduction process
13. The chemical name for the compound having formula NaOH is
- (A) Caustic soda (B) Caustic potash
- (C) Soda ash (D) Sodium hydroxide
14. Helium gas is filled in balloons because
- (A) Its atomic number is 2 (B) It is lighter than air
- (C) It is one of the constituents of water (D) It is a noble gas
15. Gas law was given by
- (A) Boyle (B) Ostwald (C) Arrhenius (D) Faraday
16. Consider the following statements:
- I. Amalgams are alloys containing Hg.
- II. Amalgams are always in liquid state.
- III. Amalgams are highly coloured alloys.
- IV. Amalgams are alloys which resist corrosion.
- Of the statements:
- (A) I alone is correct (B) I and II are correct
- (C) I, II and are correct (D) All are correct
17. What happens to the equivalent conductance of an electrolyte on dilution?
- (A) Decreases
- (B) Increases
- (C) Remains constant
- (D) May increase or decrease depending on the electrolyte
18. Match list-I with list-II correctly and select your answer using the codes given below:

List-I

List-II

- | | |
|------------------|--------------------------|
| (a) Antipyretics | 1. Iodoform |
| (b) Antimalarial | 2. Pencillin |
| (c) Antibiotic | 3. Lower the temperature |
| (d) Antiseptic | 4. Chloroquine |

Codes:

| | a | b | c | d |
|------------|----------|----------|----------|----------|
| (A) | 1 | 4 | 2 | 3 |
| (B) | 3 | 4 | 2 | 1 |
| (C) | 2 | 4 | 3 | 1 |
| (D) | 3 | 1 | 2 | 4 |

19. Cotton fibre is made up of
 (A) Protein (B) Cellulose (C) Minerals **(D) Lignin**
20. Protein metabolism is carried out by
(A) Vitamin A (B) Vitamin B₁ (C) Vitamin B₂ (D) Vitamin D
21. The first insecticide produced in India is
(A) DDT (B) BHC (C) Parathion (D) Chloral
22. Piezo electric effect is exhibited by
 (A) Diamond **(B) Quartz** (C) Carbon (D) Iron
23. Isotopes have
 (A) The same atomic mass **(B) The same atomic number**
 (C) The same proportion in different elements (D) Difference in mass
24. Lunar caustic is
 (A) Sodium hydroxide (B) Potassium hydroxide
(C) Silver nitrate (D) Sodium nitrate
25. Which of the following is true?
 (A) A mineral cannot be an ore (B) All minerals are ore
 (C) All ores cannot be minerals **(D) All ores are minerals**
26. The colourless gas with the smell of rotten fish is

- (A) H₂S **(B) PH₃** (C) C₂H₄ (D) C₂H₂

27. The fungicide bordeaux mixture consists of

- (A) Borax and copper sulphate (B) Borax and calcium hydroxide
 (C) Boric acid and calcium hydroxide **(D) Copper sulphate and calcium hydroxide**

28. The substance used in the manufacture of high voltage insulators is

- (A) Natural rubber **(B) Silicons** (C) Silicon carbide (D) Synthetic rubber

29. Tobacco is preserved from drying out in

- (A) Glycerol **(B) Glycol** (C) Ethanol (D) Acetone

30. Match list-I with list-II correctly and select your answer using the codes given below:

List-I

List-II

- | | |
|---|-----------------|
| (a) Nuclear model of an atom | 1. J.J. Thomson |
| (b) Empirical atomic model | 2. Bohr |
| (c) Elliptical orbits of electrons in an atom | 3. Rutherford |
| (d) Model of hydrogen atom | 4. Sommerfeld |

Codes:

- | | a | b | c | d |
|------------|----------|----------|----------|----------|
| (A) | 1 | 3 | 2 | 4 |
| (B) | 1 | 2 | 3 | 4 |
| (C) | 2 | 1 | 4 | 3 |
| (D) | 3 | 1 | 4 | 2 |

31. Which one of the following is incorrectly matched?

- (A) Mohr's salt - FeSO₄ (NH₄)₂ SO₄ 6H₂O
 (B) Basic salt - NaHCO₃
(C) Basic salt - Cu (OH) NO₃
 (D) Complex salt - K₄ Fe (CN)₆

32. Natural rubber is a polymer derived from

- (A) Butadiene (B) Ethylene **(C) Isoprene** (D) Propylene

33. Butane dioic acid is

- (A) Malonic acid (B) Adipic acid **(C) Succinic acid** (D) Glutaric acid
34. Carborandum is
(A) Si **(B) SiC** (C) SiO₂ (D) SiCl₄
35. ${}_{20}\text{Ca}^{40}$ and ${}_{19}\text{K}^{40}$ are
(A) Isomers (B) Isotopes **(C) Isobars** (D) Isotones
36. Epsom salt is
(A) ZnSO₄ · 7H₂O **(B) MgSO₄ · 7H₂O** (C) FeSO₄ · 7H₂O (D) None of these
37. Which one of the following is an explosive?
(A) Benzene hexachloride **(B) Trinitro toluene**
(C) Tetraethyl lead (D) Polyvinyl chloride
38. The number of ions produced from one molecule of K₄ Fe (CN)₆ in aqueous solution is
(A) 4 (B) 3 (C) 5 (D) 1
39. The formula which is used to calculate the maximum number of electrons in the principle quantum number is
(A) 2² **(B) 2n²** (C) 3n (D) 4n
40. Trimethyl benzene is called
(A) Pyrogallol (B) Catechol (C) Mesityl oxide **(D) Mesitylene**
41. The formula of plaster of paris is
(A) CaSO₄ (B) CaSO₄ · H₂O
(C) CaSO₄ · ½ H₂O (D) CaSO₄ · 2 H₂O
42. A white powder insoluble in water dissolves in ammonium hydroxide. It could be
(A) Silver chloride (B) Aluminium oxide
(C) Calcium carbonate (D) Barium sulphate
43. Mass number of an element represents
(A) Number of protons and neutrons
(B) Number of electrons and neutrons

(C) Number of protons and electrons

(D) None of these

44. Match the following correctly and select your answer using the codes given below:

| Molecule | Shape |
|-----------------------|-------------|
| (a) Ammonia | 1. Linear |
| (b) Water | 2. Planar |
| (c) Boron trifluoride | 3. V-shaped |
| (d) Carbon-di-oxide | 4. Pyramid |

Codes:

| | a | b | c | d |
|------------|----------|----------|----------|----------|
| (A) | 3 | 2 | 1 | 4 |
| (B) | 3 | 1 | 4 | 2 |
| (C) | 4 | 3 | 2 | 1 |
| (D) | 1 | 2 | 3 | 4 |

45. The commonly used refrigerant in fridges is

- (A) Ammonia (B) Liquid nitrogen (C) Liquid oxygen **(D) Freons**

46. Match the items of list I with list II and select the correct answer using the codes given below the lists:

| List-I | List-II |
|-------------------------|---|
| (a) Tollen's reagent | 1. Cupric acetate in acetic acid |
| (b) Barfoed's reagent | 2. Mixture of CuSO_4 sodium citrate and Na_2CO_3 |
| (c) Molisch reagent | 3. Ammonical silver nitrate solution |
| (d) Benedict's solution | 4. Alcoholic 2-naphthol and conc. H_2SO_4 |

Codes:

| | a | b | c | d |
|------------|----------|----------|----------|----------|
| (A) | 3 | 1 | 4 | 2 |
| (B) | 2 | 1 | 4 | 3 |
| (C) | 2 | 3 | 1 | 4 |
| (D) | 4 | 3 | 1 | 2 |

47. Match list-I with list-II correctly and select your answer using the codes given below:

| List-I | List-II |
|--------|---------|
|--------|---------|

- | | |
|-----------------|---------------------|
| (a) Cinnabar | 1. PbS |
| (b) Zinc blende | 2. HgS |
| (c) Galena | 3. $Al_2O_3, 2H_2O$ |
| (d) Bauxite | 4. ZnS |

Codes:

- | | | | | |
|------------|----------|----------|----------|----------|
| | a | b | c | d |
| (A) | 2 | 1 | 4 | 3 |
| (B) | 2 | 4 | 1 | 3 |
| (C) | 1 | 3 | 4 | 2 |
| (D) | 3 | 1 | 4 | 2 |

48. Sodium thiosulphate is widely used in photography. Its main role in photographic process is due to

- | | |
|-----------------------|-------------------------|
| (A) Reduction | (B) Oxidation |
| (C) Complex formation | (D) Photo decomposition |

49. If the percentage of oxygen in a metallic oxide is 33.33%, then its equivalent mass is

- | | | | |
|--------|--------|---------------|--------|
| (A) 66 | (B) 16 | (C) 32 | (D) 50 |
|--------|--------|---------------|--------|

50. In nature borax occurs as

- | | | | |
|-------------------|----------------|---------------|--------------|
| (A) Tincal | (B) Colemanite | (C) Tridymite | (D) Borasite |
|-------------------|----------------|---------------|--------------|

51. Match the items of list I with list II and select the correct answer using the codes given below the lists:

- | | |
|---------------------------------------|---|
| List-I | List-II |
| (a) Neutral ferric chloride solution | 1. Identification of sulphur in organic compounds |
| (b) Fehling's solution | 2. To identify phenolic group |
| (c) Sodium nitrogen prusside solution | 3. To identify phosphate |
| (d) Ammonium molybdate reagent | 4. To identify reducing sugars |

Codes:

- | | | | | |
|------------|----------|----------|----------|----------|
| | a | b | c | d |
| (A) | 3 | 1 | 4 | 2 |
| (B) | 2 | 4 | 1 | 3 |
| (C) | 2 | 3 | 4 | 1 |

- (D) 3 2 4 1
52. Petroleum mainly contains
(A) Aliphatic hydrocarbons (B) **Aromatic hydrocarbons**
(C) Aliphatic alcohols (D) None
53. Bhopal gas tragedy of 1984 was caused by one of the following compounds:
(A) CO (B) COCl_2 (C) **Methyl isocyanide** (D) Methyl isocyanate
54. pH of blood is
(A) 8 (B) **7.4** (C) 6.4 (D) 4
55. The blue colour of water in the sea is due to
(A) Absorption of other colours except blue by water molecules
(B) **Scattering of blue light by water molecules**
(C) Refraction of blue light by impurities in sea water
(D) Reflection of blue sky by a sea water
56. The acid present in vinegar is
(A) **CH_3COOH** (B) H_2SO_4 (C) HCl (D) HNO_3
57. When a lead storage battery is discharged
(A) SO_2 is evolved (B) Lead is formed
(C) Lead sulphate is consumed (D) **H_2SO_4 is consumed**
58. Combustion chemically is
(A) Decomposition (B) Reduction
(C) Slow oxidation (D) **Rapid oxidation**
59. Cinnamic acid is prepared by
(A) Friedel-Crafts reaction (B) Cannizzaro's reaction
(C) **Perkin's reaction** (D) Claisen's reaction
60. The number of isomers in the aromatic compound with the formula C_8H_{10} is
(A) **2** (B) 3 (C) 4 (D) 1

61. Trimethyl benzene is called
(A) Pyrogallol **(B) Mesitylene** (C) Catechol (D) Mesityl oxide
62. Benzaldehyde on treatment with chlorine in the absence of catalyst gives
(A) Benzoyl chloride (B) O – chlorobenzaldehyde
(C) P-chlorobenzaldehyde (D) Chlorobenzene
63. Salicylic acid is prepared by
(A) Perkin's reaction **(B) Kolbe's reaction**
(C) Reimer – Tiemann reaction (D) Hofmann reaction
64. What is the formula of plaster of Paris?
(A) CaSO_4 (B) $\text{CaSO}_4 \cdot \text{H}_2\text{O}$ **(C) $\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$** (D) $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
65. Tartar emetic is
(A) Potassium bismuth nitrate (B) Potassium tartrate
(C) Antimony tartrate **(D) Potassium antimonyl tartrate**
66. The fourth electron in atom will have the four quantum numbers as
- | | n | l | m | ss |
|------------|----------|----------|----------|----------------------------------|
| (A) | 2 | 0 | 0 | $-\frac{1}{2}$ |
| (B) | 1 | 0 | 0 | $+\frac{1}{2}$ |
| (C) | 2 | 1 | 0 | $+\frac{1}{2}$ |
| (D) | 1 | 1 | 1 | $+\frac{1}{2}$ |
67. Mass number of an element represents number of
(A) Protons and neutrons (B) Electrons and neutrons
(C) Protons and electrons (D) None of these
68. Mohr's salt is
(A) $(\text{NH}_4)_2 \text{Fe}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ (B) $(\text{NH}_4) \text{Fe}(\text{SO}_4)_2 \cdot 5\text{H}_2\text{O}$
(C) $(\text{NH}_4)_2 \text{Fe}(\text{SO}_4)_2 \cdot 24\text{H}_2\text{O}$ (D) $(\text{NH}_4) \text{Fe}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$
69. The absorbent used in colour chromatographic method is

- (A) Silica gel (B) Benzene (C) Acetone (D) Ether

70. The number of orbitals in f sub – shell energy level is

- (A) 3 (B) 2 (C) 5 **(D) 6**

71. In the periodic table, the elements present in the groups from 3 to 12 are known as

- (A) S – Block **(B) P – Block** (C) D – Block (D) F – Block

72. The effect which represents the splitting of spectral lines by external magnetic field is

- (A) Zeeman effect** (B) Stark effect (C) Raman effect (D) None of these

73. Match the following:

| Molecule | Shape |
|----------------------|-------------|
| (a) Ammonia | 1. Linear |
| (b) Water | 2. Planer |
| (c) Borontrifluoride | 3. V-shaped |
| (d) Carbon-dioxide | 4. Pyramid |

Codes:

| | a | b | c | d |
|------------|----------|----------|----------|----------|
| (A) | 3 | 2 | 1 | 4 |
| (B) | 3 | 1 | 4 | 2 |
| (C) | 4 | 3 | 2 | 1 |
| (D) | 1 | 2 | 3 | 4 |

74. On the right-hand side of the periodic table are the

- (A) Metals **(B) Non-metals** (C) Metalloids (D) Rare earths

75. A solution of sodium acetate in water will

- (A) Turn red litmus to blue **(B) Turn blue litmus to red**
 (C) Decolourise litmus (D) None of these

76. Which of the following elements is the most electronegative?

- (A) Oxygen (B) Chlorine (C) Nitrogen **(D) Fluorine**

77. Which one of the following is incorrectly matched?

- (A) Mohr’s salt - $\text{FeSO}_4(\text{NH}_4)_2\text{SO}_4 \cdot 6 \text{H}_2\text{O}$

- (B) Basic salt - NaCHO_3
 (C) Basic salt - Pb(OH)NO_3
 (D) Coordination salt (complex) - $\text{K[Ag(CN)}_2]$

78. Match the following:

- | | |
|--------------------------|---------------------------|
| (a) Benzene hexachloride | 1. Thermoplastic material |
| (b) Trinitrotoluene | 2. Insecticide |
| (c) Tetraethyl | 3. Explosive |
| (d) Polyvinyl chloride | 4. Anti-knock compound |

Codes:

- | | a | b | c | d |
|-----|---|---|---|---|
| (A) | 2 | 3 | 4 | 1 |
| (B) | 4 | 1 | 2 | 3 |
| (C) | 1 | 2 | 3 | 4 |
| (D) | 3 | 4 | 1 | 2 |

79. The number of isomers in the aromatic organic compound with molecular formula $\text{C}_7\text{H}_8\text{O}$ is

- (A) 2 (B) 3 (C) 4 **(D) 5**

80. Silver nitrate produces a black stain on skin due to

- (A) Being strong reducing agent (B) Its corrosive action
(C) Its reduction to metallic silver (D) None of these

81. Copper sulphate solution is acidic in nature due to

- (A) Hydrolysis** (B) Ionisation
 (C) Presence of sulphate ions (D) None of these

82. A white powder, insoluble in water dissolves in ammonium hydroxide, could be

- (A) Barium sulphate (B) Aluminium oxide
(C) Silver chloride (D) Calcium carbonate

83. Epsom salt is

- (A) $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ (B) $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ **(C) $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$** (D) None of these

84. Biogas mainly contains

- (A) Carbon-di-oxide (B) Oxygen **(C) Methane** (D) Nitrogen
85. Acid rain is caused by the pollutants
(A) CO and CO₂ (B) CO₂ and O₃ (C) N₂ and CO₂ **(D) N₂O and SO₂**
86. Acetyl salicylic acid is commonly used as
(A) Tear gas (B) A fertilizer **(C) A pain killer** (D) A sedative
87. Which solution will have the highest boiling point?
(A) 1% solution of glucose in water
(B) 1% solution of sodium chloride in water
(C) 1% solution of zinc sulphate in water
(D) 1% solution of urea in water
88. The disaccharide present in milk is
(A) Sucrose (B) Maltose **(C) Lactose** (D) Cellotriose
89. Natural petroleum is a liquid mixture of paraffin hydrocarbons
(A) C₄ to C₁₂ (B) C₁ to C₂₀ (C) C₁ to C₄₀ **(D) C₅ to C₁₅**
90. Which gas is commonly filled in giant balloons?
(A) Hydrogen **(B) Helium** (C) Hydrogen sulphide (D) Carbon-di-oxide
91. The chemical added to the colourless LPG cooking to give odour is
(A) Chlorine (B) Bromine (C) Nitrogen **(D) Sulphur**
92. Which of the following gases may cause acid rain in an industrial area?
(A) CO₂ (B) CO **(C) SO₂** (D) CH₄
93. Which of the following contains poly unsaturated fatty acids in largest amount?
(A) Sunflower oil (B) Coconut oil (C) Soyabean oil (D) Cotton seed oil
94. The drugs caffeine, tannin, nicotine are
(A) Steroids (B) Milk alkalis (C) Alkaloids (D) Cortisones
95. Urea is a ----- fertilizer
(A) Phosphate (B) Potash **(C) Nitrogenous** (D) None of these

96. Coloured glass, coral, ruby glass, metal alloys are colloidal solutions of
- (A) Solid in a gas (B) Liquid in a liquid
(C) **Solid in a solid** (D) Solid in a liquid
97. Which carbohydrate is not a hexose?
- (A) Glucose (B) Fructose (C) **Mannose** (D) Lactose
98. Which is not correctly matched?
- (A) Kekule - Structure of benzene
(B) Contact process - Synthesis of ammonia
(C) **Haworth** - **Synthesis of anthracene**
(D) Vant Hoff - Dilute solutions
99. A solution of potassium nitrate is
- (A) Alkaline (B) Neutral
(C) Alkaline of acidic depending on the concentration (D) **Acidic**
100. How is the degree of hardness of water expressed?
- (A) Parts per millions of calcium chloride (B) **ppm of magnesium carbonate**
(C) ppm of magnesium chloride (D) ppm of calcium carbonate