

## General Science Model Test Questions 14 With Answers [Chemistry - 3]

- Fat is a  
(A) Protein                      **(B) Lipid**                      (C) Amino acid                      (D) Base
- Calorific value is in the order of  
**(A) Fats > carbohydrates > proteins**                      (B) Proteins > carbohydrates > fats  
(C) Carbohydrates > fats > proteins                      (D) None
- Vulcanisation is the process of adding ----- to rubber  
(A) Iron                      **(B) Sulphur**                      (C) Carbon                      (D) Cobalt
- Which one of the following is not a radioactive substance?  
**(A) Calcium**                      (B) Uranium                      (C) Thorium                      (D) Radium
- Optical isomers have  
(A) Plane of symmetry                      (B) Centre of symmetry  
**(C) Both (A) and (B)**                      (D) Neither (A) nor (B)
- The element with the maximum number of isotopes in nature is  
(A) Carbon                      **(B) Uranium**                      (C) Hydrogen                      (D) Lead
- How can a given colourless liquid be tested whether it is water or not?  
(A) Smelling  
(B) Tasting  
**(C) Adding a pinch of anhydrous copper sulphate**  
(D) Adding phenolphthalein
- For what purpose is alum used by dyers of cloth?  
(A) As first aid for cuts                      (B) For softening hard water  
**(C) As a mordant**                      (D) For fire proofing fabrics
- Polymers of amino acid is  
(A) Sugar                      (B) Fat                      (C) Phenol                      **(D) Protein**
- Which gas is used in the preparation of soda water?

- (A) Carbon monoxide (B) Chlorine  
(C) Carbon dioxide (D) Ammonia
11. Which of the following compounds gives Iodoform reaction?  
(A) Acetone (B) Benzaldehyde  
(C) Benzophenone (D) Methyl alcohol
12. The oxidation number of C in oxalic acid ( $H_2C_2O_4$ ) is  
(A) 4 (B) 2 (C) 3 (D) 1
13. Cooking oil can be converted into vegetable ghee by the process of  
(A) Hydrogenation (B) Crystallisation  
(C) Oxidation (D) Ionisation
14. Which is an example of fermented beverage?  
(A) Whisky (B) Brandy (C) Rum (D) Wine
15. Oil of winter green is  
(A) Acetyl salicylic acid (B) Methyl salicylate  
(C) Ethyl salicylate (D) Benzoic acid
16. A part from carbon and hydrogen pyridine contains  
(A) Oxygen (B) Nitrogen (C) Sulphur (D) Chlorine
17. The chemical name for vitamin C is  
(A) Benzoic acid (B) Ascorbic acid  
(C) Salicylic acid (D) Crotonic acid
18. Milk is an example of  
(A) Suspension (B) Gel (C) Foam (D) Emulsion
19. The mass number of hydrogen is  
(A) 2.5 (B) 1 (C) 1.8 (D) 3
20. Bakelite is obtained from  
(A) Phenol and benzaldehyde (B) Phenol and formaldehyde

- (C) Phenol and acetaldehyde (D) Phenol and acetone
21. During dehydration the body loses  
(A) Iron (B) **Sugar** (C) Sodium chloride (D) Calcium sulphate
22. The hormone that contains iodine is  
(A) Adrenaline (B) Insulin (C) **Thyroxin** (D) Testosterone
23. Green house effect causes  
(A) Formation of chlorophyll in plants (B) Growth of plant in glass house  
(C) Photosynthesis in plants (D) **Heating of earth surface**
24. The hybridization of carbon in ethane is  
(A)  $sp^3$  (B)  $sp^2$  (C)  $sp$  (D)  **$dsp^2$**
25. Which is the weakest?  
(A) Ionic bond (B) Hydrogen bond  
(C) **Covalent bond** (D) Metallic bond
26. Ornamental gold contains  
(A) Silver (B) Tin (C) **Copper** (D) Manganese
27. Which is used to produce artificial rain?  
(A) Silver nitrate (B) Sand  
(C) **Silver iodide** (D) Copper oxide
28. Which metal is involved in galvanization process  
(A) Copper (B) **Zinc** (C) Tin (D) Lead
29. The alcohol used in the preparation of dynamite is  
(A) Glycol (B) Ethyl alcohol (C) **Glycerol** (D) Methyl alcohol
30. Why there is a spluttering sound when water is sprinkled on hot oil?  
(A) Boiling point is higher for water than that of oil  
(B) **Boiling point of oil is higher than that of water**  
(C) Oil and water do not mix

- (D) Oil and water form a compound
31. Which of the following is used as a dehydrating agent?  
(A) HCl      (B) HNO<sub>3</sub>      (C) HClO<sub>4</sub>      **(D) H<sub>2</sub>SO<sub>4</sub>**
32. Wood is preserved from attack by termites by a material marked as creosote oil, this is a mixture of  
(A) Ethyl alcohol & phenol      (B) Tar and water  
(C) Cresols      **(D) Kerosene and tar**
33. In gobar gas plant, which one of the following gases is released?  
(A) Hydrogen      (B) Oxygen      **(C) Methane**      (D) Hydrogen sulphide
34. The heat of neutralization is constant for  
**(A) Strong acid - Strong base**      (B) Strong acid - weak base  
(C) Weak acid - Strong base      (D) Weak acid - weak base
35. The strength of the solution of 4g of NaOH in 1 litre is  
**(A) 0.01 N**      (B) 0.1 N      (C) 0.2 N      (D) 1 N
36. The name Victor Meyer is associated with  
**(A) Distinction of 1°, 2°, 3° alcohols**      (B) Distinction of 1°, 2°, 3° amines  
(C) Distinction of aldehydes and ketones      (D) None of these
37. A peptide is  
(A) Polyene      (B) Polyester      **(C) Polyamide**      (D) Polyalcohol
38. The oxidation number of chromium in K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> is  
**(A) 6**      (B) 3      (C) 1      (D) 0
39. The indicator used in the titration between KMnO<sub>4</sub> and FeSO<sub>4</sub> is  
(A) Phenolphthalein      (B) Methyl orange      (C) Methyl red      **(D) None**
40.  $\Delta H =$   
**(A)  $\Delta E + \Delta nRT$**       (B)  $\Delta E - \Delta nRT$       (C)  $\Delta E + RT^{\Delta n}$       (D)  $\Delta E - RT^{\Delta n}$
41. The shape of methane is  
**(A) Square planar**      (B) Square pyramidal      (C) Tetrahedron      (D) Octahedron

42. If pH = 7, pOH =?
- (A) Zero                      **(B) 7**                      (C) 14                      (D) None of these
43. The lewis base among the following is
- (A) NH<sub>3</sub>                      (B) NH<sub>4</sub> Cl                      (C) NaOH                      **(D) Al (OH)<sub>3</sub>**
44. The non-reducing sugar among the following is
- (A) Glucose                      **(B) Fructose**                      (C) Sucrose                      (D) Maltose
45. The one, which is not a colligative property, is
- (A) Elevation of boiling point                      **(B) Viscosity**
- (C) Lowering of vapour pressure                      (D) Osmotic pressure
46. The ion that does not cause hardness of water is
- (A) Na<sup>+</sup>**                      (B) Mg<sup>2+</sup>                      (C) CO<sub>3</sub><sup>2-</sup>                      (D) HCO<sub>3</sub><sup>-</sup>
47. Rocket fuel is
- (A) Oxygen                      (B) Oxygen and methane
- (C) Ozone                      **(D) Hydrazine and dinitrogen tetroxide**
48. Match list-I with list-II correctly and select your answer using the codes given below:
- |                     |                  |
|---------------------|------------------|
| List-I              | List-II          |
| (a) Nuclear fission | 1. Helium        |
| (b) Nuclear fusion  | 2. Medicine      |
| (c) Radio isotope   | 3. Hydrogen bomb |
| (d) α-rays          | 4. Atomic bomb   |
- Codes:
- |            |          |          |          |          |
|------------|----------|----------|----------|----------|
|            | a        | b        | c        | d        |
| <b>(A)</b> | <b>4</b> | <b>3</b> | <b>2</b> | <b>1</b> |
| (B)        | 3        | 1        | 4        | 2        |
| (C)        | 4        | 1        | 3        | 2        |
| (D)        | 1        | 3        | 4        | 2        |
49. Compound that decolorizes bromine water is
- (A) Ethane                      (B) Benzene                      **(C) Acetylene**                      (D) Ethanol

50. Power alcohol is a mixture of  
(A) Ethyl alcohol + petrol (B) Methyl alcohol + petrol  
(C) Ethyl alcohol + methyl alcohol (D) Petrol + ether
51. Which one of the following is a transition element?  
(A) Helium (B) Sodium (C) Copper (D) Fluorine
52. The isotope  ${}_{7}\text{N}^{14}$  contains  
(A) 7 electrons (B) 7 protons (C) 7 neutrons (D) All of these
53. An atom of chlorine with atomic number 17 and mass number 35, contains in its nucleus  
(A) 18 protons (B) 18 neutrons (C) 35 neutrons (D) 35 protons
54. Starch on hydrolysis gives  
(A)  $\text{CO}_2$  and  $\text{H}_2\text{O}$  (B) Fructose (C) Sucrose (D) Glucose
55. Which of the following helps the fermentation process?  
(A) Keeping the temperature of the reaction low  
(B) Leaving the reaction for a few days  
(C) Heating the reaction  
(D) Adding enzymes
56. Methylated spirit is  
(A) Ethyl alcohol containing 5% methyl alcohol (B) 100% methyl alcohol  
(C) 95% ethanol (D) Absolute alcohol
57. Stainless steel is an alloy of  
(A) Steel + chromium + nickel (B) Steel + silver + nickel  
(C) Steel + nickel + aluminium (D) Steel + chromium + aluminium
58. Diabasic acid is  
(A) Acetic acid (B) Phosphoric acid (C) Sulphuric acid (D) Nitric acid
59. Element which is an enemy of copper is  
(A) Sulphur (B) Carbon (C) Chlorine (D) Nitrogen

60. Which one of the following is a chemical reaction?  
(A) Sublimation of camphor                      **(B) Combustion of carbon**  
(C) Melting of ice                                      (D) Dissolution of sugar in water
61. The element used in lead pencils is  
**(A) Carbon**                      (B) Zinc                      (C) Lead                      (D) Tin
62. Carbon monoxide is  
(A) Acidic                      (B) Basic                      (C) Neutral                      **(D) Amphoteric**
63. The amount of nitrogen present in the atmospheric air is about  
(A) 58%                      **(B) 78%**                      (C) 98%                      (D) 68%
64. Molecular weight =  $\alpha \times$  vapour density is  
(A) 1                      **(B) 2**                      (C) 3                      (D) 4
65. Metal ore, galena contains  
(A) Silver                      (B) Zinc                      **(C) Lead**                      (D) Magnesium
66. DDT is an  
**(A) Insecticide**                      (B) Explosive                      (C) Antibiotic                      (D) Enzyme
67. Rare gases are  
**(A) Di-atomic**                      (B) Tri-atomic                      (C) Mono-atomic                      (D) None of the above
68. Iodine with starch gives the colour which?  
(A) Red                      (B) Yellow                      (C) Pink                      **(D) Blue**
69. Bleaching powder contains  
**(A) Chlorine**                      (B) Bromine                      (C) Iodine                      (D) Nitrogen
70. i) A physical change alters the composition of the substance  
ii) A reaction which produces heat is called exothermic reaction  
**(A) False, true**                      (B) True, false                      (C) False, false                      (D) True, true
71. i)  $\alpha$ -particle is identical to hydrogen nuclei  
ii) Normal solution contains 1gm molecular weight of the solute per litre

- (A) True, false      **(B) False, true**      (C) False, false      (D) True, true

72. Match the following using the codes given below:

- |             |                    |
|-------------|--------------------|
| (a) Hypo    | 1. Silica          |
| (b) Quartz  | 2. Thiosulphate    |
| (c) Brine   | 3. Aluminium ore   |
| (d) Bauxite | 4. Sodium chloride |

Codes:

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

73. Match the following using the codes given below:

- |              |                   |
|--------------|-------------------|
| (a) Uranium  | 1. Liquid metal   |
| (b) Graphite | 2. Radio activity |
| (c) Mercury  | 3. Alloy          |
| (d) Steel    | 4. Pencil         |

Codes:

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

74. Match the following using the codes given below:

- |              |             |
|--------------|-------------|
| (a) Caffeine | 1. Tobacco  |
| (b) Opium    | 2. Coffee   |
| (c) Nicotine | 3. Cinchona |
| (d) Quinine  | 4. Poppy    |

Codes:

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



(C) 2 4 1 3

(D) 4 3 1 2

75. Which of the following atmospheric gases is in highest percentage?

(A) Carbon dioxide (B) Oxygen (C) Ozone (D) Nitrogen

76. Gas used to harden oils in the preparation of vanaspathi

(A) Oxygen (B) Nitrogen (C) Hydrogen (D) Carbondioxide

77. The term PVC used in the plastic industry stands for

(A) Polyvinyl carbonate (B) Polyvinyl chloride  
(C) Phosphaviny chloride (D) Phosphor vanadium, chloride

78. The boiling point of water on the Kelvin scale

(A) 270° K (B) 373° K (C) 100° K (D) 212° K

79. For drinking purpose water can be purified by

(A) Distillation (B) Filtration (C) Chlorination (D) Sedimentation

80. The hardest variety of carbon is

(A) Coal (B) Charcoal (C) Diamond (D) Leeco

81. The poisonous gas produced by a Motor car

(A) Carbon monoxide (B) Methyl isocyanate  
(C) Carbon disulphate (D) Nitrous oxide

82. What is the "lead" of a lead pencil made of?

(A) Carbon (B) Stone (C) Graphite (D) Lampblack

83. The tendency of similar molecules to stick together is known as

(A) Gravitation (B) Adhesion (C) Cohesion (D) Assimilation

84. Hydrogen bomb is based on the principle of

(A) Nuclear fission (B) Nuclear reaction  
(C) Nuclear explosion (D) Non-nuclear fission

85. Estimation of nitrogen is done by

- (A) Carius method (B) Kassaigne’s method  
 (C) Soda – lime test (D) Kjeldahl’s method

86. 95% alcohol is known as

- (A) Absolute alcohol (B) Rectified spirit  
 (C) Meethylated spirit (D) Power alcohol

87. Bleaching action of chlorine is by

- (A) Oxidation (B) Reduction (C) Hydrolysis (D) Decomposition

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

List-I

List-II

- (a) Dolomite  
 (b) Calamine  
 (c) Malachite  
 (d) Cryolite

1. Zinc  
 2. Magnesium  
 3. Copper  
 4. Lead

Codes:

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

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

List-I

List-II

- (a) Brass  
 (b) Bronze  
 (c) Solder  
 (d) Invar

1. Copper and tin  
 2. Copper and zinc  
 3. Steel and nickel  
 4. Tin and lead  
 5. Copper and nickel

Codes:

- |     | a | b | c | d |
|-----|---|---|---|---|
| (A) | 2 | 1 | 5 | 3 |
| (B) | 1 | 2 | 4 | 3 |
| (C) | 2 | 1 | 4 | 5 |

(D) 2 1 4 3

90. Which of the following pair is/are correctly matched?

1) Natural fibre - Cotton

2) Natural rubber - Thiokol

3) Synthetic fibre - Nylon

4) Synthetic detergent - Soap

(A) 1 & 3

(B) 2 & 3

(C) 3 & 4

(D) 2 & 4

91. Which one of the following gases is readily soluble in water at room temperature?

(A) Chlorine

(B) Carbon dioxide

(C) Ammonia

(D) Nitrogen

92. Which one of the following undergoes polymerization to form a plastic?

(A) Methane

(B) Acetic acid

(C) Ethanol

(D) Ethylene

93. Which by product is obtained in the manufacture of soap from oils?

(A) Fats

(B) Glycerine

(C) sodium chloride

(D) Sodium hydroxide

94. Which one of the following properties is not a characteristic of a metal?

(A) It forms acidic oxides

(B) It can be beaten into sheets

(C) It is good conductor of heat

(D) It forms positive ions by loss of electrons

95. Which one of the following combinations would liberate carbon dioxide gas?

(A) Calcium carbide + water

(B) Calcium carbonate + water

(C) Calcium carbonate + dilute hydrochloric acid

(D) Calcium hydroxide + dilute hydrochloric acid

96. Ethane and ethylene may be distinguished by using a few drops of

(A) Litmus solution

(B) Bromine water

(C) Lime water

(D) Dilute hydrochloric acid

97. The percentage of oxygen present in air by volume is

(A) 0.5%

(B) 20.5%

(C) 27.8%

(D) 78.5%

98. Which one of the following requires a solvent other than water dissolve it?  
(A) Sugar                      (B) Common salt                      (C) Dissolved gases                      **(D) Sulphur**
99. The filter beds at water works remove most of the  
(A) Bacteria                      (B) Solutes                      (C) Dissolved gases                      **(D) Suspended solids**
100. The lowest percentage of carbon is present in  
(A) Galvanised iron                      (B) Pig iron  
(C) Cast iron                      **(D) Steel**