General Science Model Test Questions 29 With Answers [Chemistry - 7]

1. According to Arrhenius concept, base is a substance which

(A) Gives a pair of protons (B) Donates protons

(C) Accepts a lone pair of electrons **(D) Donates hydroxyl ions**

2. Consider the following statements:

Assertion (A): Electric cookers are coated with magnesium oxide.

Reason (R): It protects them against fire.

Now select your answer according to the coding scheme given below:

(A) Both (A) and (R) are true, and (R) is the correct explanation of (A)

(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A)

(C) (A) is true, but (R) is false

(D) (A) is false, but (R) is true

3. The element(s) which exist in liquid state at room temperature is (are)

I. Sodium II. Bromine III. Mercury IV. Magnesium

Of these:

(A) I alone is correct (B) I and II are correct

(C) II and III are correct (D) All are correct

4. Which of the following is the correct order of calorific values of fuel?

(A) Hydrogen > Petrol > Wood (B) Wood > Hydrogen > Petrol

(C) Petrol > Wood > Hydrogen (D) Wood > Petrol > Hydrogen

5. Chlorapatite is the ore of

(A) Chlorine **(B) Phosphorous** (C) Calcium (D) Potassium

6. White phosphorous is always kept under

(A) Water (B) Alcohol (C) Kerosene (D) Benzene

7. ${}_1D^2$ & ${}_1T^3$ are the isotopes of which of the following?

(A) Hydrogen (B) Titanium (C) Diamond (D) Tungsten

8. Bone ash is the chief source of

(A) Boron **(B) Phosphorous** (C) Carbon (D) Silicon

9. Isotopes can be detected by

(A) Mass Spectrometer **(B) U.V. Spectrometer**

(C) I.R. Spectrometer (D) N.M.R. Spectrometer

10. Compounds having low melting points, low boiling points and behaving as not electrolytes are

(A) Electrovalent compounds **(B) Covalent compounds**

(C) Co-ordinate compounds (D) Complex compounds

11. The peak of atomic volume curve is occupied by

(A) Alkali metals (B) Halogens

(C) Inert gases (D) Alkaline earth metals

12. The maximum numbers of electrons in subshells s, p, d, f are

(A) 2, 6, 10, 14 **(B) 2, 8, 18, 32** (C) 2, 6, 18, 32 (D) 2, 8, 14, 32

13. The age of rocks can be determined using

(A) Radio – Cobalt **(B) Radio – Carbon**

(C) Radio – Iodine (D) Radio – Phosphorous

14. Spiegeleisen is an alloy of

(A) Sulphur, iron & carbon (B) Iron, Magnesium and carbon

(C) Iron, manganese and carbon (D) Selenium, iron and carbon

15. Tritium ($_1T^3$) is

(A) An isotope of titanium (B) An isotope of tungsten

(C) A radio – isotope of hydrogen **(D) An isotope of hydrogen**

16. Which one of the following is radio active?

(A) Phosphorous (B) Arsenic **(C) Astatine** (D) Carbon

17. Slaked lime is

(A) CaO (B) $CaCo_3$ **(C) $Ca(OH)_2$** (D) $CaCl_2$

18. Aqua regia is a mixture of

(A) Conc. HCl 3 parts + conc. HNO_3 1 part (B) Conc. HCl 3 parts + conc. H_2SO_4 1 part

(C) Conc. H_2SO_4 1 part + conc. HNO_3 3 parts (D) Conc. HCl 1 parts + conc. HNO_3 3 parts

19. White phosphorous reacting with sodium hydroxide gives

(A) Phosphoric acid **(B) Phosphine**

(C) Red phosphorous (D) Phosphorous pentoxide

20. Man – made element is

(A) Plutonium **(B) Uranium-235** (C) Thorium (D) Radium

21. The insulator among the following is

(A) Silicon (B) Aluminium (C) Graphite **(D) Diamond**

22. Consider the following statements:

Assertion (A): In gas balloon helium replaces hydrogen.

Reason (R): Helium is incombustible

Now select your answer according to the coding scheme given below:

(A) Both (A) and (R) are true, and (R) is the correct explanation of (A)

(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A)

(C) (A) is true, but (R) is false

(D) (A) is false, but (R) is true

23. Identify the correct order of rusting

(A) Iron < Silver < Platinum **(B) Platinum < Silver < Iron**

(C) Iron < Platinum < Silver (D) Silver < Iron < Platinum

24. The chemical that could be used in refrigeration is

(A) Carbon dioxide (B) Ammonium hydroxide

(C) Ammonium Chloride **(D) Ammonia**

25. Which of the following is a laughing gas?

(A) Carbon monoxide (B) Carbon dioxide

(C) Nitrous oxide (D) Sulphur dioxide

26. Coating of zinc over iron article is known as

(A) Galvanisation (B) Electroplating (C) Electro refining (D) Etching

27. Tincture of iodine is

(A) Iodine (B) Iodine and iodoform

(C) Iodine and potassium iodide (D) Iodoform

28. Which one of the following is correctly matched?

(A) Liquid gold - Lead **(B) Liquid silver - Mercury**

(C) Aqua regia - Silver (D) Green Silver - Copper

29. Which one of the following is correctly matched?

(A) Charcoal - Inactive carbon (B) Diamond - Conductor

(C) Graphite – Insulator **(D) Fullerence – Soluble form of carbon**

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

List I	List II
(a) Lead tetraethyl	1. Global warming
(b) Liquid hydrogen	2. Antiknocking agent
(c) Hydrogen peroxide	3. Rocket fuel
(d) Carbon dioxide	4. Bleaching agent

Codes:

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

31. Consider the following statements:

Assertion (A) : Silver article on exposure to air become black

Reason (R) : Silver is oxidized to silver oxide

Now select your answer according to the coding scheme given below:

(A) Both (A) and (R) are true and (R) is the correct explanation of (A)
(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
(C) (A) is true, but (R) is false
(D) (A) is false, but (R) is true

32. The most acidic compound of the following is

(A) Methane (B) Methyl alcohol (C) Ethyl alcohol **(D) Phenol**

33. Consider the following statements:

Assertion (A) : Bakelite is a thermosetting plastic

Reason (R) : Thermosetting plastics are those which change irreversibly into hard and rigid materials on heating

Of these statements:

(A) Both (A) and (R) are correct and (R) is the correct explanation of (A)
(B) Both (A) and (R) are correct, but (R) is not correct explanation of (A)
(C) (A) is true, but (R) is false
(D) (A) is false, but (R) is true

34. Diamond and graphite are

(A) Isomers (B) Isotopes **(C) Allotropes** (D) Polymers

35. Activated charcoal is used to remove colouring matter from impuret substances. It works by

(A) Oxidation (B) Reduction **(C) Adsorption** (D) Bleaching

36. Bordeaux mixture is a mixture of

(A) Copper sulphate and lime (B) Bleaching powder and DDT

(C) DDT and BHC (D) DDT and Parathion

37. Aluminium ore is known as

(A) Lignite **(B) Bauxite** (C) Anthracite (D) Pyrite

38. Consider the following statements:

I. Graphite is an allotrope of carbon

II. Diamond is a metal

III. Graphite is a non-conductor of electricity

IV. Diamond is the hardest naturally occurring substance

Of the Statements:

(A) **I and IV are correct** (B) I alone is correct

(C) I, II and III are correct (D) All the correct

39. Which one of the following is correctly matched?

(A) Iron – Bones **(B) Cobalt – Vitamin B_{12}**

(C) Calcium – Semiconductor (D) Silicon – Haemoglobin

40. Match List I with List II correctly and select your answer using the codes given below:

	List I	List II
(a)	Blood clotting	1. Insulin
(b)	Blood sugar level	2. Vitamin K
(c)	Source of energy	3. Carbohydrates
(d)	Vinegar	4. Acetic acid

Codes:

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

41. The substance that is not colloidal in nature is

(A) Blood (B) Milk (C) Smoke **(D) Sea water**

42. The percentage of gold in 18 carat is

(A) 50 (B) 60 **(C) 75** (D) 80

43. The pH of blood is

(A) 2.4-3.4 (B) 4.0-4.4 (C) 4.55-5.5 **(D) 7.3-7.5**

44. Global warming is caused by

(A) Lead **(B) Carbon monoxide**

(C) Particulate matter (D) Nitrogen Oxides

45. The chemical behavior of an element is due to

(A) Protons (B) Neutrons (C) Electrons **(D) Outermost electrons**

46. The metal that exhibits allotropy is

(A) Gold (B) Silver (C) Copper **(D) Tin**

47. Which one of the following is a metalloid?

(A) Antimony (B) Mercury (C) Magnesium (D) Argon

48. The filament of gas-filled electric bulb is made of

(A) Platinum **(B) Tungsten** (C) Copper (D) Silver

49. The dry ice is

(A) Ice blocks free from liquid water (B) Ice mixed with sodium chloride

(C) Solid carbon dioxide (D) Solidified heavy water

50. $2n^2$ formula was given by

(A) Rutherford (B) Goldstein **(C) Bohr-Bury** (D) Chadwick

51. The value of ionic product of water at 298K is

(A) 1×10^{-7} $mol^2.L^{-2}$ **(B) 1×10^{-14} $mol^2.L^{-2}$**

(C) 1×10^{-14} $mol^2.L^{-2}$ (D) 1×10^{7} $mol^2.L^{-2}$

52. The enzyme which converts glucose into ethyl alcohol is

(A) Diastase (B) Invertase **(C) Zymase** (D) Maltase

53. Sodium salts of fatty acids are

(A) Hard soaps (B) Soft soaps

(C) Toilet soaps (D) Shaving creams

54. Which of the following concentrated acid mixtures is used to prepare aqua regia?

(A) $HCl+H_2SO_4$ **(B) $HCl+HNO_3$** (C) $HNO_3+ H_2SO_4$ (D) $HCl+H_3PO_4$

55. Which of the following is used as a fungicide?

(A) Carbon (B) Carbon tetrachloride **(C) Sulphur** (D) Copper

56. The source of tartaric acid is

(A) Vinegar (B) Lemon Juice **(C) Grapes** (D) Milk

57. Which of the following is not an ore?

(A) Bauxite (B) Malachite (C) Zinc Blende **(D) Wrough Iron**

58. The metal that is extracted from sea water is

(A) Sodium (B) Calcium (C) Magnesium (D) Tin

59. The amount of chromium in stainless steel is

(A) 50% (B) 25% **(C) 14%** (D) 2%

60. Which of the following elements occurs in the free state in nature?

(A) Iron (B) Cobalt **(C) Platinum** (D) Nickel

61. Which of the following gases comes under 'Noble gases'?

(A) Nitrogen (B) Oxygen **(C) Neon** (D) Hydrogen

62. Which is used as a fire extinguisher?

(A) Oxygen **(B) Carbon dioxide** (C) Carbon monoxide (D) Water gas

63. The ozone layer of the earth is useful for living being because

(A) It serves as the source of oxygen (B) It maintains nitrogen cycle

(C) It maintains temperature **(D) It prevents excessive ultraviolet rays**

64. The speed of ultra centrifuges to concentrate viruses in solution is

(A) 5×10^{-5} rpm (B) 5×10^{6} rpm **(C) 5×10^{5} rpm** (D) 5×10^{-6} rpm

65. Rectified spirit is

(A) 90 % ethanol and 10% water (B) 80 % ethanol and 20 % water

(C) 95.6 % ethanol and 4.4 % water (D) 96.5 Ethanol and 3.5 % water

66. Stainless steel contains

(A) Copper, nickel, chromium (B) Copper, tungsten, chromium

(C) Iron, nickel, chromium (D) Iron, tungsten, chromium

67. Oxides of metals are generally

(A) Acidic (B) Netural **(C) Basic** (D) Amphoteric

68. Plaster of paris has the molecular formula

(A) $CaSO_4.HO$ (B) $CaSO_4.2H_2O$ **(C) $CaSO_4$. ½ H_2O** (D) $CaSO_4$. 1½ H_2O

69. Ozone depletion in the atmosphere is mainly caused by

(A) SO_2 (B) NO_2 (C) NO **(D) CFC**

70. Consider the following Statements:

$MnO_2+4HCl\ MnCl_2+Cl_2+2H_2O$

In the above reaction,

Assertion (A): MnO_2 is an oxidising agent.

Reason (R) : The Oxidation number of Mn is decreased from +4 to +2

Now select your answer according to the coding scheme given below:

(A) Both (A) and (R) are true and (R) is the correct explanation of (A)
(B) Both (A) and (R) are true, but (R) is not correct explanation of (A)
(C) (A) is true, but (R) is false
(D) (A) is false, but (R) is true

71. The method(s) used to determine the equivalent masses of elements is/are

I. Chloride method II. Oxide method

III. Metal displacement method IV. hydrogen displacement method

Of these:

(A) I alone is correct (B) I and III are correct

(C) I, II and III are correct **(D) All are correct**

72. Match List I with List II correctly and select your answer using codes below:

List I	List II
(a) Sulphide ore	1. Gravity separation method
(b) Oxide ore	2. Electromagnetic separation method
(c) Bauxite ore	3. Forth flotation process
(d) Thinstone ore	4. Chemical method

Codes:

a b c d

(A)	1	4	2	3
(B)	1	2	4	3
(C)	**3**	**1**	**4**	**2**
(D)	3	4	2	1

73. Find the worng pair:

(A) CH_3-CH_2-O-CH_2-CH_3 - Ether

(B) CH_3-CH_2-CH_2-CH_3 - Alkane

(C) CH_3-C-CH_3 - Ketone

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(D) CH_3-CH_2-OH - Aldehyde

74. The soluble fibrinogen is converted into soluble fibrin by the action of

(A) Thrombin (B) Prothrombinase (C) Thrombase (D) Thrombokinase

75. The carbon dioxide dissolved in water

(A) Enhances corrosion (B) Suppresses corrosion

(C) Prevents corrosion (D) Has no influence on corrosion

76. Nylon is a

(A) Polyester (B) Polyethylene **(C) Polyamide** (D) Polysaccharide

77. One carat of diamond is

(A) 100mg **(B) 200 mg** (C) 300 mg (D) 400 mg

78. Sugar in blood and urine is tested with

(A) Benedict's solution (B) Brine solution

(C) Hypo solution (D) Iodine solution

79. Dry ice is

(A) Liquid nitrogen (B) Purified ice

(C) Solid carbon dioxide (D) Supercooled ice

80. The calorific value of the fuel is of the order

(A) Coal>peat>lignite>dried wood (B) Peat>lignite>coal>dried Wood

(C) Lignite>peat>coal>dried wood **(D) Coal>lignite>peat>dried wood**

81. Which one of the following iscorrectly matched?

(A) Baking soda – sodium bicarbonate (B) Caustic soda – Calcium carbonate

(C) Sodalime – Sodium carbonate (D) Washing soda – Calcium hydroxide

82. Which one of the following is correctly matched?

(A) Ascorbic acid – Vitamin (B) Insulin – Antiseptic

(C) penicillin – Antipyretic (D) Proteins – Polysaccharide

83. From which of the following biodiesel is obtained?

(A) Ethyl Alcohol (B) Cellulose (C) Bagasse **(D) Jatropha**

84. The volatile substance used in most retrigerators is

(A) Acetone (B) Water (C) Helium **(D) Freon**

85. Valcanisation of rubber is done by

(A) NH_3 (B) SO_2 **(C) S** (D) H_2S

86. The gas used in fountain experiment is

(A) Oxygen (B)Nitrogen (C) Hydrogen **(D) Ammonia**

87. Rocket fuel is

(A) Liquid hydrogen (B) Liquid nitrogen (C) Liquid Oxygen (D) Liquid petrol

88. Which is used in softening of hard water?

(A) Bleaching powder (B) Washing soda (C) Baking soda (D) Soda Ash

89. The chemical name of 'aspirin' is

(A) Paracetamol **(B) Acetyl salicylic acid** (C) Acetominophen (D) Ibuprofen

90. The lightest element known is

(A) Helium **(B) Hydrogen** (C) Argon (D) Lithium

91. The taste of bases is

(A) Sour **(B) Bitter** (C) Sweet (D) Salty

92. In Haber's process

(A) SO_2 is manufactured (B) H_2SO_4 is manufactured

(C) HNO_3 is manufactured **(D) NH_3 is manufactured**

93. The oxide that is present in maximum portion in cement is

(A) SiO_2 (B) Fe_2O_3 (C) Al_2O_3 **(D) CaO**

94. Solid, liquid, gas, ----------

The forth state is

(A) Saturated vapour (B) Colloid (C) Srystaline **(D) Plasma**

95. Which of the following energies is a non-renewable energy?

(A) Solar energy (B) Wind energy (C) Tidal energy **(D) Petroleum**

96. A non-metal which exists as a liquid at room temperature is

(A) Hg (B) Na (C) Cl_2 **(D) Br_2**

97. The acid which has a peroxy linkage is

(A) Sulphurous acid **(B) Pyrosulphuric acid** (C) Dithionic acid (D) Caro's acid

98. Breathalyzers determine alcohol content through the redox reaction

$$Cr_2O^{2-}_7 + C_2H_5OH \rightarrow Cr^{3+} + C_2H_4O_2$$

Which substance is being reduced?

(A) Cr^{3+} (B) $Cr_2O^{2-}_7$ **(C) C_2H_5OH** (D) Cr^{3+} and $Cr_2O^{2-}_7$

99. Which oxide of nitrogen is formed when ammonium nitrate is heated?

(A) N_2O (B) NO (C) NO_2 (D) N_2O_5

100. Why aspirin has a sour taste?

(A) The acidic nature of aspirin

(B) The sour flavour is added to help prevent overdosing

(C) Aspirin is made sour as mandated child safety feature

(D) It is the basic nature of aspirin