General Science Model Test Questions 33 With Answers [Chemistry - 11]

1. One among the following is mono atomic

   (A) Oxygen **(B) Helium** (C) Fluorine (D) Nitrogen

2. The 17th group Elements Fluorine, Chlorine, Bromine, Iodine and Astatine are collectively known as Halogens. It is derived from two Greek words, Halo and Gens meaning

   (A) Gun-Producer (B) Paint-Producer

   (C) Chemical-Producer **(D) Salt-Producer**

3. Rodenticides (Rat killers) are

   (A) Mixture of copper sulphate and calcium hydroxide

   (B) DDT and Zinc phosphate

   (C) Zinc phosphate and Arsenic

   (D) Malathion and Zinc phosphate

4. Consider the following statements:

   Assertion (A): Sodium hydroxide is a strong base.

   Reason (R): Sodium hydroxide ionizes completely in aqueous solution.

   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

5. Gold will dissolve only in

   (A) Nitric acid (B) Sulphuric acid

   (C) Hydrochloric acid **(D) Aqua regia**

6. Which of the following statements about urea is incorrect?

   (A) It does not change the pH of the soil

   (B) It has highest nitrogen content equal to 76.6%

   (C) It is not subjected to fire/explosion hazards

(D) It can be used for all crops and soils

7. Which allotropic form of carbon is a good conductor of electricity?

(A) Diamond **(B) Graphite** (C) Coke (D) Wood charcoal

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

List-I	List-II
(a) Thallium	1. Deoxidiser
(b) Aluminium	2. Dental work
(c) Boron	3. Ringworm ointments
(d) Indium	4. Ultra marine

Codes:

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

9. The metal related to 'Alzheimer's disease' is

(A) Chromium (B) Cadmium **(C) Aluminium** (D) Arsenic

10. When yeast is producing wine which one of the following is not formed?

(A) Acetyl CoA (B) Ethyl alcohol (C) Carbon-di-oxide (D) Pyruvic acid

11. The chemical mainly responsible for the car-air bag reaction is

(A) NH_4NO_3 (Ammonium Nitrate) **(B) NaN_3 (Sodium azide)**

(C) KNO_3 (Potassium Nitrate) (D) SiO_2 (Silica)

12. Arrange the following in ascending order based on number of carbon atoms present in it.

I) Erythrose phosphate II) Phsopho glyceraldehyde

III) Sedoheptulose phosphate IV) Ribulose phsopahte

(A) I, IIII, II, IV **(B) II, I, IV, III** (C) I, II, III, IV (D) II, IV, I, III

13. Bordeaux mixture is

(A) $CuSO_4 + Ca(OH)_2$ (B) $CuSO_4 + CaCl_2$

(C) $ZnSO_4 + Ca(OH)_2$ (D) $ZnSO_4 + CaCl_2$

14. Which statement is correct?

I) Wohler synthesized organic compound (urea) from an inorganic compound annonium cyanate.

II) Wohler synthesized inorganic compound (urea) from an organic compound ammonium cyanate.

III) Wohler synthesized organic compound (urea) from an inorganic compound ammonium isocyanate.

(A) I and III (B) II and III (C) I and II **(D) I only**

15. What is the IUPAC name of isobutyl alcohol?

(A) 2-ethyl-1-propanol **(B) 2-methyl-1-propanol**

(C) 1-ethyl-2-propanol (D) 1-methyl-2-propanol

16. The term basicity means

(A) Number of replaceable hydrogen atoms in one molecule of an acid

(B) Total number of hydrogen atoms in one molecule

(C) Number of replaceable hydroxide ions in one molecule

(D) Total number of hydroxide ions in one molecule

17. Which is called "Aqua tortis"?

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

18. The new 4 elements added to the periodic table since 2011. They are

(A) 113, 114, 115 and 116 (B) 115, 116, 117 and 118

(C) 113, 115, 117 and 118 (D) 14, 116, 117 and 118

19. Which of the following weighs the most?

(A) One mole of water **(B) One mole of sodium**

(C) One molecule of H_2SO_4 (D) One gram-atom of nitrogen

20. The elements like silicon, tellurium and germanium can be purified by

(A) Electrolytic refining (B) Mond's process

(C) Zone refining (D) Pattinson's process

21. Prosthetic group of cytochrome oxidase [Cyt.a_3] contains

(A) Cu (B) Ni (C) Mn (D) Fe

22. For the purification of metals, match List – I with List – II and select the correct answer.

List-I	List-II
(a) Ag	1. Electrolytic method
(b) Cu	2. Cupellation method
(c) Ga	3. Solvent extraction
(d) U	4. Zone refining

Codes:

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

23. Arrange the following acids in the decreasing order of acid strength in aqueous medium: perchloric acid, hydro chloric acid, nitric acid, sulphuric acid

(A) Perchloric acid > Nitric acid > Sulphuric acid > Hyfro chloric acid

(B) Perchloric acid > Hydro chloric avid > Nitric acid > Sulphuric acid

(C) Sulphuric acid > Nitric acid > Perchloric acid > Hydro chloric acid

(D) Perchloric acid > Sulphuric acid > Hydro chloric acid > Nitric acid

24. Which of the following compounds(s) will liberate methane gas on reaction with water?

(A) BeC_2 only (B) Al_3C_3 only

(C) Be_2C only **(D) Both Al_4C_3 and Be_2C**

25. When $KMnO_4$ is reduced with oxalic acid in acid medium, the oxidation number of Mn changes from?

(A) 7 to 4 **(B) 7 to 2** (C) 6 to 4 (D) 4 to 2

26. Identify the incorrectly matched pair

(A) Fe – metal **(B) Bi – metal** (C) P – non metal (D) Sb – metalloid

27. Which one of the following metal ions is a hard acid?

(A) Li^+ (B) Cu^+ (C) Ag^+ (D) Au^+

28. The oxidation number of chromium in $Cr_2O^{2-}_7$ ion is

(A) -2 (B) +7 **(C) +6** (D) -6

29. The ore concentrated by Froth floatation process is

(A) Chromite (B)Rutile **(C) Galena** (D) Monazite

30. Nitroim is

(A) $Ca(NO_3)_2$ CaO (B) $CaCO_3$ **(C) $CaCN_2$** (D) $CaNO_3$

31. Starch is converted into maltose by the enzyme

(A) Diastase (B) Zymase (C) Ribose (D) Invertase

32. The value of ionic product of water

(A) 1×10^{-12} mol^2. Lit^{-2} (B) 1×10^{-13} mol^2. Lit^{-2}

(C) 1×10^{-14} mol^2. Lit^{-2} (D) 1×10^{-15} mol^2. Lit^{-2}

33. Cyrtolith is the deposition of

(A) Calicium carbonate (B) Calcium oxylate

(C) Calcium pectate (D) Silica

34. Which of the following is incorrectly matched?

(A) Teflon - Tetrafluoro ethylene

(B) Plexi glass - Methyl methacrylate

(C) Orlon - Glycerol, phthalic anhydride

(D) Buna-s - Styrene, 1,3- butadiene

35. The chemical identified to trap malaria mosquitoes is

(A) Redcol (B) Decol **(C) Cedrol** (D) Ecdrol

36. What are deuterium and tritium?

(A) Two different elements (B) Two different compounds

(C) Names of two ores **(D) Isotopes of hydrogen**

37. Match the following:

(I) Carbon dioxide (a) Vulcanization of rubber (i) Insecticide

(II) Fuel	(b) Carbon black	(ii) Beverages
(III) Rubber tyres	(c) Fire extinguisher	(iii) Ink pigment
(IV) Carbon disulphide	(d) Reducing agent	(iv) Carbon monoxide

(A) I – c – (iii)	**II – d – iv**	**III – b – iii**	**IV – a – i**
(B) I – c – iii	II – d – ii	III – b – I	IV – a – iv
(C) I – a – I	II – b – iii	III – d – iv	IV – c – ii
(D) I – b – iv	II – d – iii	III – c – iii	IV – a – i

38. Find out the incorrect statement(s):

(I) All lathanides are non – radioactive

(II) Some actinides form MO_2^+, Mo^{2+}_2 oxocations.

(III) The compounds of lanthanides are more basic than that of acitinide compounds

(IV) 5f elements show variables oxidation states like +2, +3, +4, +5, +6 and +7

(A) I and III (B) II and IV (C) III only (D) IV only

39. If the solubility of magnesium hydroxide is $\sqrt{2}$, the value of solubility product is

(A) 8 (B) $4\sqrt{2}$ **(C) $8\sqrt{2}$** (D) $9\sqrt{2}$

40. Moss cotton is

(A) Azolla (B) Funaria (C) Nitella **(D) Sphagnum**

41. The oxidation of So^{2-}_3 to SO^{2-}_4 ion by oxygen SO^{2-}_3 + $\rightarrow SO^{2-}_4$, in this rection which is Lewis acid and Lewis base?

(A) SO^{2-}_3 is Lewis acid and oxygen is Lewis base

(B) Oxygen is Lewis acid and So^{2-}_3 is Lewis base

(C) Both are Lewis acids

(D) Both are Lewis base

42. Which one of the organic pesticides that contain phosphorous?

(A) DDT (B) BHC (C) 2, 4-D **(D) Parathion**

43. Match the following:

(a) Mixed fertilizer (1) DAP

(b) Complex fertilizer (2) NPK

(c) Bio fertilizer (3) Oil cake

(d) Organic nitrogen fertilizer (4) Algae

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

44. The concentration of hyfroxide ion in a basic solution the pH value 4 is

(A) 1×10^{-4} M **(B) 1×10^{-10} M** (C) 10×10^{-14} M (D) 1×10^{4} M

45. Match the following:

(a) $CuSO_4.5H_2O$	1. Lunar caustic
(b) $ZnCO_3$	2. Philosopher's wool
(c) $AgNo_3$	3. Blue vitriol
(d) ZnO	4. Calamine

Codes:

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

46. $2KOH + H_2SO_4 \rightarrow K_2SO_4 + 2H_2O$

The Equivalent mass of the salt K_2SO_4 is

(A) Equal to its molar mass (B) Twice its molar mass

(C) Half its molar mass (D) Thrice its molar mass

47. Match the following:

Acid – base titration	**Suitable indicator**
(a) HCl Vs NaOH	1. Phenolphthalein
(b) HCl Vs Na_2CO_3	2. No Suitable indicator
(c) CH_3COOH Vs	

(d) Visakhapatnam 4. UK

Codes:

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

48. Match the following with correct answer:

(a) Parathion	1. Thiocarbamate fungicide
(b) Nabam	2. Non-systematic fungicide
(c) Captan	3. Organo phosphorous insecticide
(d) Carboxin	4. Systematic fungicide

Codes:

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

49. Elements with an atomic number above ---------- are called super heavy elements.

(A) 104 (B) 103 (C) 105 (D) 112

50. According to Lux – flood concept a base is a/an

(A) Hydroxide ion donor (B) Proton acceptor

(C) Electron donor **(D) Oxide ion donor**

51. In which of the separation process, no reducing agent is required?

(A) Iron from haematite (B) Aluminium from bauxite

(C) Mercury from cinnabar (D) Zinc from Zinc blende

52. What is the element X in the nuclear reaction?

$^{14}_{7}N + {}^{4}_{2}He \rightarrow X + {}^{1}_{1}P$

(A) $^{17}_{7}N$ **(B) $^{17}_{8}O$** (C) $^{17}_{9}F$ (D) $^{18}_{10}Ne$

53. Polymerising methyl arcylate in presence of polychlorostyrene yields

(A) Chelate polymers **(B) Graft Polymer**

(C) Coordination polymers (D) Branched polymers

54. Find out the incorrect statement(s).

I) Magnesium can reduce oxides of Aluminium, Zinc, Iron and copper.

II) Copper cannot reduce the oxides of Iron and Zinc.

III) Zinc can reduce the oxides of Al and Mg.

IV) Aluminium can reduce the oxide of Mg.

(A) I and II **(B) III and IV** (C) III alone (D) IV alone

55. The blue colour in Borax Bead test is due to the presence of

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

56. Choose the incorrect match

(A) Baking soda – sodium hydrogen carbonate

(B) Washing soda – sodium carbonate

(C) Bleaching powder – calcium oxycholoride

(D) Limestone – calcium sulphate

57. Which of the following is/are correct?

I) Conjugate acid of NH_3 is NH^-_2

II) Conjugate base of HN_3 is N^-_3

III) HCO^-_3 can act both Bronsted acid and Bronsted base

(A) I and II **(B) II and III** (C) I and III (D) I, II and III

58. Match the compounds with correct oxidation number of the underlined:

Compounds	**Oxidation number**
(a) $Cr O_2 Cl_2$	1. +7
(b) $Mn O_3 Cl$	2. +2
(c) $NH_2 OH$	3. -1

(d) OF_2 4. +6

Codes:

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

59. $KClO_3$ being an oxidising agent during reaction, converts to KCl, where the oxidation number of 'Cl' decreases from ---------- to -----

(A) +3 to -1 **(B) +5 to -1** (C) +1 to -1 (D) +4 to -1

60. The hardness of water is estimated by using --------

(A) Chelating Agent (B) Oxidising Agent

(C) Reducing Agent (D) Neutralising Agent

61. Match the following lists:

List-I	**List-II**
(a) Neomycin	1. Streptomyces fradiae
(b) Terramycin	2. Pencillium notatum
(c) Viridin	3. Streptomyces rimosus
(d) Penicillin	4. Gliocladium virens

Codes:

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

63. The concept which states that "An acid is a substance which can accept electrons"

(A) Arrhenius concept (B) Lowry and Bronsted concept

(C) Lewis concept (D) Lux-Flood concept

64. Carborundum is

(A) Boron carbide (B) Calcium carbide

(C) Tungsten carbide **(D) Silicon carbide**

65. Match the following and choose the correct option.

(a) Urea	1. $[Ca(NO_3)_2\ NH_4NO_3]$
(b) CAN	2. $(NH_2)_2\ CO$
(c) Calcium cyanamide	3. $3\ CaH_4\ (PO_4)_2$
(d) Triple super phosphate	4. CaNCN

Codes:

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

66. Which of the allotropes of carbon has network of 20 hexagons and 12 pentagons of carbon atoms?

(A) Diamond **(B) Fullerene** (C) Graphite (D) Carbon nano tubes

67. One among the following is not an insecticide

(A) Methoxychlor **(B) Pheromone** (C) Heptachlor (D) Gammaxene

68. The acidity of the rain water is measured by the scale

(A) °C (B) dB **(C) pH** (D) Cm

69. The International Tsunami Information Centre is located at

(A) India (B) Srilanka **(C) Hawaii** (D) Japan

70. In the following crystals which is the Piezo electric crystal?

(A) Diamond **(B) Quartz** (C) Sodium Chloride (D) Silicon

71. Which among the following is correct?

Alloy	**Composition**
(A) Duralumin	- Al + Cu + Mg + Ag
(B) Genman silver	- Cu + Zn + C
(C) Gun metal	**- Cu + Zn + Sn**
(D) Solder	- Pb + Al

72. The conductance due to ions present in one cm cube of material is known as

(A) Partial conductance **(B) Specific conductance**

(C) Equivalent conductance (D) Molar conductance

73. Complete the given equation of oxidation of glucose $C_6H_2O_6 + 6O_2 \rightarrow$ ----------

(A) $3CO_2 + 2H_2O$ + Kcal (B) $3CO_2 + 6H_2O$ + Kcal

(C) $6CO_2 + 6H_2O$ + Kcal (D) $6CO_2 + 2H_2O$ + Kcal

74. Which of the following fertilizer has highest percentage of nitrogen?

(A) Calcium ammonium nitrate (B) Basic calcium nitrate

(C) Carbamide (D) Calcium cyanamide

75. The correct order of acid strength of $HClO_4$, HBr, HF and H_3PO_4 is

(A) $HClO_4 > HF > HBr > H_3PO_4$ (B) $HClO_4 > HBr > HF > H_3PO_4$

(C) $HClO_4 > HBr > H_3PO_4 > HF$ (D) $HBr > HF > HClO_4 > H_3PO_4$

76. Match the following:

(a) Sindri fertilizer	1. Sodium nitrate
(b) Chile nitre	2. Calcium cyanamide
(c) Nitrolim	3. Ammonium sulphate
(d) Nangal fertilizer	4. CAN

Codes:

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

77. Which of the following is used as explosive?

(A) Mercuric oxide **(B) Nitroglycerine**

(C) Graphite (D) Mercuric sulphide

78. NH^+_4 ion is

(A) A conjugate acid (B) A conjugate base

(C) Neither an acid nor a base (D) Both an acid and a base

79. Which of the following nitrogen-fertilizer has the highest nitrogen percentage?

(A) $CaCN_2$ **(B) Urea** (C) NH_4NO_3 (D) $(NH_4)_2SO_4$

80. Packing fraction is

(A) Mass number / Mass defect (B) Mass defect / Mass number

(C) Mass defect / mass number (D) $\frac{1}{Mass\ defect\ x\ Mass\ number}$

81. The precious ruby stones are

(A) Aluminium silicate (B) Sodium aluminium silicate

(C) Sodium silicate **(D) Alumina**

82. Which of the following pairs are incorrect?

I) Chloroflurocarbons - Refrigerators

II) Methane - Ploughing of fields

III) Nitrous oxide - Enteric fermentation in cows

IV) Carbon dioxide - Burning of fossil fuels

(A) I and II **(B) II and III** (C) III and IV (D) I and IV

83. Identify the incorrect pair:

I) Washing soda 1) Na_2Co_3

II) Bleaching powder 2) CaO

III) Plaster of paris 3) $caSO_4\ \frac{1}{2}\ H_2O$

IV) Baking soda 4) $NaHCO_3$

(A) IO **(B) II** (C) III (D) IV

84. What are the chemicals present in match stick?

(A) Red phosphorous, glue, sulphur

(B) Antimony sulphide, sulphur, potassium chlorate

(C) Antimony sulphide, red phosphorous, glue

(D) Antimony sulphide, phosphorous, sulphur

85. The metal having positive Thomson effect is

(A) Pt **(B) Ag** (C) Ni (D) Hg

86. The colour of $Fe(OH)_3$ colloid is

(A) Yellow (B) Yellow orange **(C) Red** (D) Black

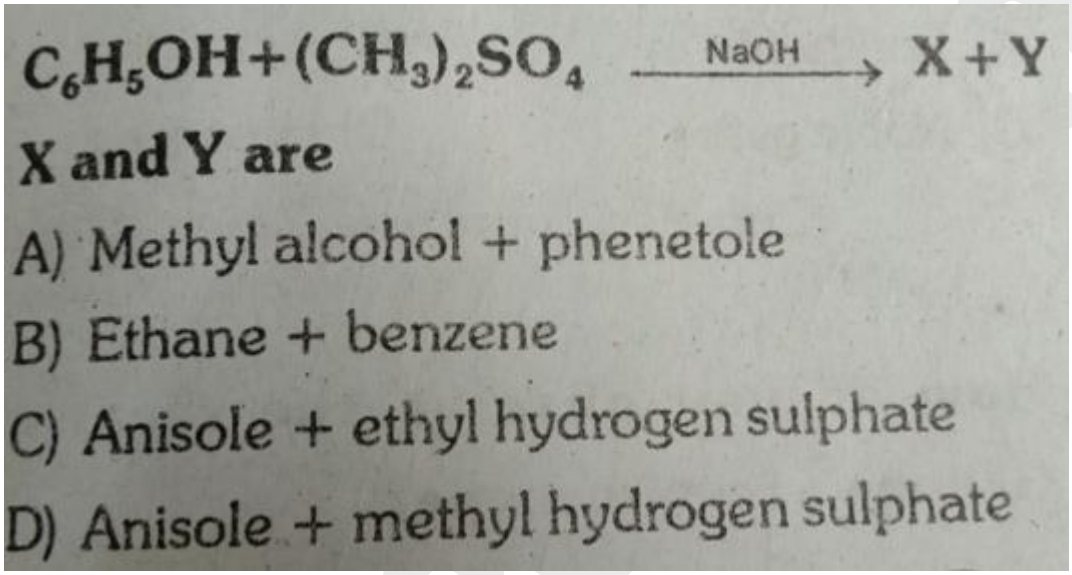
87. The work function of zinc is 6.8×10^{-19}J. What is the threshold frequency for emission of photo electrons from zinc?

(A) 1.206×10^{15} Hz **(B) 1.026×10^{15} Hz**

(C) 1.0026×10^{15} Hz (D) 1.026×10^{14} Hz

88. The half life period of N^{13} is 10.1 minutes. Its life time is

(A) 5.2 minutes (B) 10.1 minutes (C) 20.2 minutes **(D) Infinity**

89. 

Ans : (D)

90. Among the following which is used an anesthetic

(A) Di-methyl ather **(B) Di-ethyl ether**

(C) Di-phenyl ether (D) Anisole

91. Which one of the following otganic compound, aldol-condensation reaction does not undergo?

(A) Acetaldehyde (B) Acetone

(C) Benzophenone (D) Ethyl alcohol

92. Which compound does not undergoes haloform reaction?

(A) Ethyl alcohol **(B) Methyl alcohol**

(C) Iso-propyl alcohol (D) Acetone

93. Which one of the following is the correct order of dipole moments for three isomers of dichlorobenzene?

(A) Ortho isomer < Meta isomer < Para isomer

(B) Ortho isomer > Meta isomer > Para isomer

(C) Para isomer < Ortho isomer > Meta isomer

(D) Meta isomer > Ortho isomer > Para isomer

94. Fumaric acid and Maleic acid are

(A) Optical isomers (B) Conformers

(C) Geometrical isomers (D) Ortho and para isomers

95. The catalyst used in Bergius process for the synthesis of petrol from coal is

(A) $CuCl_2$ (B) Cr_2O_3 (C) V_2O_5 **(D) Fe_2O_3**

96. Example of Lyophobic colloid is

(A) Sulphuric in water (B) Gelatin

(C) Protein (D) Starch

97. What type of complex reaction is, bromination of Bromobenzene?

(A) Sequential reaction **(B) Side reaction**

(C) reversible reaction (D) Chain reaction

98. The signs of ΔH and ΔS respectively, for the following reaction $Cl_{2(g)} \rightarrow 2Cl_{(g)}$

(A) -, - (B) -, + **(C) +, +** (D) +, -

99. Why steam is passed to remove away the ammonia in Haber's process

(A) Standardise pressure (B) Standardise temperature

(C) Standardise equilibrium **(D) maximum ammonia formation**

100. In the reversible reaction

$2SO_{2(g)} + O_{2(g)} \rightarrow 2SO_{3(g)}$

Find the relation between K_P and K_C.

(A) $K_P = K_C \times RT$ (B) $K_P = K_C \times (RT)^2$

(C) $K_P \times RT = K_C$ (D) $K_P = K_C \times (RT)^{-2}$