

## General Science Model Test Questions 31 With Answers [Chemistry - 9]

1. Which of the following is not an ore of silver?

- (A) Ruby silver      **(B) German silver**      (C) Horn silver      (D) Argentite

2. Which one is added to paint to impart bright whiteness?

- (A)  $MgO_2$       **(B)  $TiO_2$**       (C) CaO      (D)  $MnO_2$

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

List-I	List-II
(a) Water gas	1. $CO + N_2$
(b) Producer gas	2. $CO + H_2$
(c) Coal gas	3. $CO + H_2 + C_2H_4 + CO_2$

Codes:

	a	b	c
(A)	1	2	3
(B)	1	3	2
<b>(C)</b>	<b>2</b>	<b>1</b>	<b>3</b>
(D)	3	2	1

4. Example of Rodenticides

- (A) DAP      (B) Zinc phosphite      (C) Arsenic      **(D) (B) and (C)**

5. "The queen of drugs" refers to

- (A) Penicillin**      (B) Streptomycin      (C) Aureomycin      (D) Chloromycin

6. Arrange the stages of respiration in a logic way.

I. Electron transport chain

II. Glycolysis

III. Krebs's cycle

IV. Oxidation decarboxylation of pyruvic acid

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

7. Consider the following statements.

- I. Graphite is a good conductor of electricity  
 II. Diamond is very hard and has high melting point and boiling point  
 III. Solid carbon monoxide is known as dry ice  
 IV. Carbonic acid turns red litmus slightly blue

Which of the above statement is/are correct?

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

8. Which one of the following is correct example for isobars?

- (A)  ${}_{17}\text{Cl}^{35}$ ,  ${}_{17}\text{Cl}^{35}$               **(B)  ${}_{18}\text{Ar}^{40}$ ,  ${}_{20}\text{Ca}^{40}$**               (C)  ${}_{1}\text{H}^1$ ,  ${}_{1}\text{H}^2$               (D)  ${}_{6}\text{C}^{13}$ ,  ${}_{7}\text{N}^{14}$

9. pH values of 0.01 M HCl and 0.01 M NaOH solutions are

- (A) 2 and 7              **(B) 2 and 12**              (C) 13 and 1              (D) 3 and 11

10. The equivalent conductance of certain solution of acetic acid is  $39.07 \text{ ohm}^{-1} \text{ cm}^2 \text{ equ}^{-1}$ . If  $\lambda_{\alpha}$  of acetic acid is  $390.7 \text{ ohm}^{-1} \text{ cm}^2 \text{ equ}^{-1}$ , then the degree of dissociation of acetic acid is

- (A) 0.1**              (B) 0.2              (C) 0.5              (D) 0.75

11. Methyl orange and phenolphthalein indicators are used in acid-base titrations. Choose the correct colour changes in acid medium and basic medium.

	Acid	Base
(a) Methyl orange	1. Red	Yellow
(b) Methyl orange	2. Yellow	Red
(c) Phenolphthalein	3. Pink	Colourless
(d) Phenolphthalein	4. Colourless	Pink

- (A) a – 1 and c – 3                      **(B) a – 1 and d – 4**

- (C) b – 2 and c – 3                      (D) b – 2 and d – 4

12. With reference to urea, consider the following statements.

- I. It is used as fertilizer.  
 II. It does not change the pH of the soil.  
 III. It can be used to all types of crops and soils.

Which of the following given above is/are correct?

- (A) II only                      (B) I only                      (C) I and II                      **(D) All the above**

13. Which of the following statements about 'Glycolysis' is TRUE?

- I. It is the process of breakdown of glucose.
- II. It occurs in the cytoplasm
- III. It is operative in the inner membrane of mitochondria
- IV. It is also known as citric acid cycle

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

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

Column A	Column B
(a) Potash alum	1. ZnCO <sub>3</sub>
(b) Mohr's salt	2. K <sub>2</sub> SO <sub>4</sub> . Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> . 24H <sub>2</sub> O
(c) Prussian blue	3. Fe <sub>4</sub> [Fe(CN) <sub>6</sub> ] <sub>3</sub>
(d) Calamine	4. (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> . FeSO <sub>4</sub> . 6H <sub>2</sub> O

Codes:

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

15. Cinnabar is the ore of -----

- (A) Copper                      **(B) Mercury**                      (C) Iron                      (D) Zinc

16. The correct increasing order of acidity of HClO, HClO<sub>2</sub>, HClO<sub>3</sub> and HClO<sub>4</sub> is

- (A) HClO < HClO<sub>2</sub> < HClO<sub>3</sub> < HClO<sub>4</sub>**                      (B) HClO<sub>2</sub> < HClO < HClO<sub>3</sub> < HClO<sub>4</sub>  
 (C) HClO<sub>3</sub> < HClO<sub>4</sub> < HClO<sub>2</sub> < HClO                      (D) HClO<sub>4</sub> < HClO<sub>3</sub> < HClO<sub>2</sub> < HClO

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

List-I	List-II
(a) Ammonia	1. Laughing gas
(b) Nitrous oxide	2. Important industrial chemical
(c) Hydrazine	3. Fertilizer manufacture
(d) Nitric acid	4. Rocket Propellant

Codes:

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

18. Which type of polymer is Bakelite?

- (A) Addition polymer (B) Homopolymer  
**(C) Condensation polymer** (D) Biopolymer

19. Match the following pollutants.

- |                                |             |
|--------------------------------|-------------|
| (a) Gaseous pollutant          | 1. Anthrax  |
| (b) Metal pollutant            | 2. Chloride |
| (c) Deposited matter pollutant | 3. Cadmium  |
| (d) Bio pollutant              | 4. Tar      |

Codes:

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

20. The oxidation number of Mn in  $K_2MnO_4$  is

- (A) +2 (B) +4 **(C) +6** (D) 0

21. Which of the following oxides of nitrogen is coloured?

- (A)  $N_2O$  (B)  $N_2O_5$  (C) NO **(D)  $NO_2$**

22. Colemanite is an important mineral of

- (A) Boron** (B) Aluminium (C) Gallium (D) Indium

23. Classify the following elements as Lanthanides and Actinides

- 1) Samarium (Sm) 2) Uranium (U) 3) Plutonium (Pu) 4) Dysprosium (Dy)

(A) Lanthanides : Samarium, Dysprosium

Actinides : Uranium, Plutonium

(B) Lanthanides : Samarium, Uranium

Actinides : Plutonium, Dysprosium

(C) Lanthanides : Dysprosium, Plutonium

Actinides : Uranium, Samarium

(D) Lanthanides : Samarium, Plutonium

Actinides : Uranium, Dysprosium

24. Match the list of radio isotopes with its uses given below and choose the correct answer using the below given codes.

- |                       |                               |
|-----------------------|-------------------------------|
| (a) Cobalt 60         | 1. Fertilizer                 |
| (b) $\text{Ag}^{191}$ | 2. To photograph brain tumour |
| (c) $\text{Hg}^{197}$ | 3. Blood cancer               |
| (d) $\text{P}^{32}$   | 4. Sterilisation              |

Codes:

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

25. Which is the strongest acid?

- (A)  $\text{HCOOH}$                       (B)  $\text{CH}_3\text{COOH}$                       (C)  $\text{C}_3\text{H}_7\text{COOH}$                       (D)  $\text{C}_2\text{H}_5\text{COOH}$

26. For a cell reaction  $\text{A(S)} + 2\text{B}^+ \rightleftharpoons \text{A}^{2+} + 2\text{B}$  the equilibrium constant is found to be  $10^{12}$ . Then the  $E^\circ_{\text{cell}}$  value is

- (A) **0.354 V**                      (B) 0.708 V                      (C) 0.0295 V                      (D) 0.177 V

27. The specific conductance of a 0.01 M solution of KCl is  $1.4 \times 10^{-3} \text{ ohm}^{-1} \text{ cm}^{-1}$  at 298 K. Its equivalent conductance is ( $\text{ohm}^{-1} \text{ cm}^2 \text{ eq}^{-1}$ ).

- (A) 0.14                      (B) 1.40                      (C) 14.0                      **(D) 140**

28. The compound is used as rocket propellant

- (A) **Hydrazine**                      (B) Nitric acid                      (C) Ammonia                      (D) Nitrogen

29. Photochemical smog is formed by  
 (A)  $O_2$ ,  $NO$ ,  $H_2O_2$  organic peroxide etc. (B) Consists of mercury and lead  
 (C) Consist of  $NO_2$  and  $CO$  (D) Hydrocarbons
30. Which of the following known as complete fertilizer?  
 (A) Nitrogenous fertilizer (B) Potash fertilizer  
 (C) **NPK fertilizer** (D) NP fertilizer
31. ----- is called buckminster fullerene.  
 (A) Diamond (B) Graphite (C)  **$C_{60}$**  (D) Coal
32. Which of the following is halide ore?  
 (A) Dolomite (B) **Rock salt** (C) Bauxite (D) Galena
33. The major component of natural gas is  
 (A) Ethane (B) **Methane** (C) Butane (D) Propane
34. 'Green House effect' is caused by  
 (A) Neon (B) Helium (C)  **$CO_2$**  (D) Hydrogen
35. Select the correct answer from the following:  
 Wolframite is the ore of  
 I. Tantalum II. Molybdenum III. Chromium IV. Tungsten  
 (A) I (B) II (C) III (D) **IV**
36. Match the following and choose the correct option given below:  
 (a) Lithium 1. Actinide  
 (b) Iron 2. Lanthanide  
 (c) Cerium 3. Transition metal  
 (d) Thorium 4. Alkali metal
- Codes:
- |            |          |          |          |          |
|------------|----------|----------|----------|----------|
|            | a        | b        | c        | d        |
| (A)        | 1        | 2        | 3        | 4        |
| <b>(B)</b> | <b>4</b> | <b>3</b> | <b>2</b> | <b>1</b> |
| (C)        | 2        | 3        | 4        | 1        |

- (D) 3 4 1 2
37. Oxidation number of Mn in  $\text{KMnO}_4$  is  
(A) +5 (B) +6 (C) +7 (D) 0
38. Water gas is a mixture of  
(A)  $\text{H}_2$  and  $\text{NO}_2$  (B)  $\text{H}_2$  and  $\text{CO}$  (C)  $\text{H}_2$  and  $\text{CH}_4$  (D)  $\text{CO}$  and  $\text{NO}_2$
39. The molecular formula for CAN is  
(A)  $\text{Ca}(\text{NO}_3)_2 \cdot 5\text{NH}_4\text{NO}_3$  (B)  $\text{Ca}(\text{NO}_2)_2 \cdot 5\text{NH}_4\text{NO}_3$   
(C)  $5\text{Ca}(\text{NO}_2)_2 \cdot 5\text{NH}_4\text{NO}_3$  (D)  $\text{Ca}(\text{NO}_3)_2 \cdot \text{NH}_4\text{NO}_3$
40. If 0.400 g of  $\text{NaOH}(s)$  is dissolved to make 250 ml of solution, then calculate the pH.  
(A) 8.06 (B) 9.08 (C) 10.06 (D) 12.602
41. Who introduced the electronic theory of acids and bases?  
(A) Arrhenius (B) Franklin (C) Lewis (D) Bronsted
42. In the redox reaction  $x\text{KMnO}_4 + \text{H}_2\text{SO}_4 + y\text{H}_2\text{C}_2\text{O}_4 \rightarrow \text{K}_2\text{SO}_4 + \text{MnSO}_4 + \text{H}_2\text{O} + z\text{CO}_2$  the values of x, y and z are  
(A) 2, 10, 5 (B) 2, 5, 10 (C) 5, 2, 10 (D) 10, 5, 2
43. Calculate the pH of aqueous sodium hydroxide solution of strength 0.1 N  
(A) 1 (B) 13 (C) 7.8 (D) 0.1
44. The strongest reducing agent among the alkali metals is  
(A) K (B) Na (C) Cs (D) Li
45. The nitrogen has a ----- bond between atoms in a nitrogen molecule.  
(A) Single (B) Double (C) Triple (D) Ionic
46. Which of the following is used as an insecticide?  
(A) Aspirin (B) Gammexane (C) Quinine (D) Penicillin
47. Match the following:
- |                          |                   |
|--------------------------|-------------------|
| (a) Potassium chlorate   | 1. Constipation   |
| (b) Epsom salt           | 2. Match industry |
| (c) Copper sulphate salt | 3. Crackers       |
| (d) Potassium nitrate    | 4. Fungicide      |

Codes:

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

48. Find out the calcium compound found on bones and teeth
- (A) Calcium carbonate   **(B) Calcium phosphate**  
 (C) Calcium chloride   (D) Calcium sulphate
49. Amount the following which one is not an Insecticide?
- (A) DDT   (B) BHC   (C) Zinc phosphide   **(D) Zinc sulphide**
50. Which gas is released from the refrigerator?
- (A) CH<sub>4</sub>   (B) Cl   (C) H<sub>2</sub>   **(D) CFC**
51. Ammonia is manufactured by
- (A) Solvay process   **(B) Haber process**  
 (C) Birkland and Eyde process   (D) Claude's process
52. Which one of the following is known as 'Dry ice'?
- (A) Solid carbon dioxide**   (B) Liquid carbon dioxide  
 (C) Gaseous carbon dioxide   (D) Liquid silicon dioxide
53. Select the wrong statement
- (A) Calamine is a carbonate   **(B) Argentite is an oxide**  
 (C) Zinc blende is a sulphide   (D) Malachite is an ore of copper
54. Which of the following groups are referred to as coinage metals.
- (I) Li, K, Na   (II) Be, Mg, Ca   (III) B, Al, Ga   (IV) Cu, Ag, Au
- (A) I   (B) II   (C) III   **(D) IV**
55. Respiratory Quotient (R:Q) calculated by the following formula



- (A)  $\frac{\text{Vol. of } CO_2}{\text{Vol. of } O_2}$  (B)  $\frac{\text{Vol. of } O_2}{\text{Vol. of } CO_2}$
- (C) Vol. of  $CO_2$  + Vol. of  $O_2$  (D) Vol. of  $CO_2$  – Vol. of  $O_2$
56. The pyrimidine nitrogen bases are
- (I) Uracil (II) Thymine (III) Adenine (IV) Guanine
- (A) I only (B) I and II (C) II and III (D) I and IV
57. The reagent used in the conversion of benzene diazonium chloride to phenyl cyanide
- (A)  $HBR_4 / NaNO_2$ , Powder (B) KCN and dil HCl
- (C)  $CuCN_2$  and aqueous KCN (D) KCN solution / Cu
58. Which one of the polymers contains nitrogen?
- (A) PVC (B) Teflon (C) Nylon – 66 (D) Terylene
59. For the filtration between Oxalic acid and sodium hydroxide the indicator used in
- (A) Potassium permanganate (B) Phenolphthalein
- (C) Litmus (D) Methyl Orange
60. One of the following methods is NOT useful for the Purification of metal
- (A) Electrolytic Refining (B) Zone refining
- (C) Mond's process (D) Calcination
61. Oxidation number of carbon in  $CH_4$ ,  $CH_3Cl$ ,  $CHCl_3$  and  $CCl_4$  are
- (A) +4, -2, +2, -4 (B) -4, -2, +2, +4 (C) +4, +2, -2, -4 (D) -4, -2, +4, +2
62. Two protoplasts are fused with a fusogen called
- (A) Polyethylene glycol (B) Polyethane glycol
- (C) Polyvinyl alcohol (D) Phosphoric acid
63. Identify the odd one from the group of chemical given below:
- (A) BHC (B) DDT (C) 2, 4D (D) CAN
64. Anaesthetic used for minor operation dentistry
- (A) Nitrous oxide (B) Nitric oxide
- (C) Nitric oxide +  $O_2$  (D) Nitrogen dioxide

65. Identify the substance which is not optically active  
(A) Cinnabar (B) Sugar solution (C) Turpentine oil (D) **Wood**
66. Lactic Acid, undergoes oxidation with Fenton's reagent ( $\text{FeSO}_4 + \text{H}_2\text{O}_2$ ) gives  
$$\text{CH}_3\text{CHOH COOH} \xrightarrow[\text{(O)}]{\text{FeSO}_4\text{H}_2\text{O}_2} ?$$
  
(A)  **$\text{CH}_3\text{CO COOH}$  Pyruvic acid**  
(B)  $\text{CH}_3\text{CH COOH}$  Propionic acid  
(C)  $\text{CH}_3\text{CH}_2\text{CHO}$  Propion aldehyde  
(D)  $\text{CH}_2 - \text{O} - \text{CO}$
67. Teflon is prepared by the polymerization of .....  
(A) Butadiene (B) Vinyl Cyanide  
(C) Vinyl Chloride (D) **Tetrafluoro Ethylene**
68. The most reactive form of carbon is :  
(A) Diamond (B) Graphite (C) Coal (D) **Charcoal**
69. Which of the following is an incorrect statement of Diamond?  
(A) Diamond is the purest form of carbon  
(B) **Diamond is amorphous in nature**  
(C) Diamond has the highest melting point  
(D) Diamond is the hardest variety of carbon
70. Which one of the following metal occurs in the native form?  
(A) **Au** (B) Na (C) Pb (D) U
71. The process used for the manufacture of ammonia is  
(A) Contact process (B) Ostwald process  
(C) **Haber's process** (D) Linde's process
72. Which one of the following is not an Lewis base?

- (A)  $C_5H_5N$                       (B)  $H_2O$                       (C)  $OH^-$                       (D)  $AlCl_3$
73. Which one of the following does NOT belong to Nitrogen family?  
(A) Phosphorus                      (B) Antimony                      (C) Bismuth                      (D) Silicon
74. Acids are substances which give  $H^+$  ions in aqueous solution is the concept of  
(A) Arrhenius                      (B) Faraday                      (C) Ingold                      (D) Oswald
75. The Oxidation number of Carbon in Carbon Tetrachloride and Chloroform are  
(A) +4 and +2 respectively                      (B) -4 and -2 respectively  
(C) +4 and -3 respectively                      (D) -4 and -3 respectively
76. Element Lanthanides and Actinides belong to which block in the modern periodic table?  
(A) s – block elements                      (B) d – block elements  
(C) f – block elements                      (D) p – block elements
77. Consider the following statements:  
(A) : Malachite ore contains magnesium.  
(B) : Epsom salt contains calcium.  
Of these,  
(A) (A) alone is correct                      (B) (B) alone is correct  
(C) Both are correct                      (D) Both are wrong
78. In the nitrogen family, which one of the following has more metallic property?  
(A) Bismuth                      (B) Arsenic                      (C) Phosphorus                      (D) Nitrogen
79. The oxidation number of sulphur in  $S_8$  is :  
(A) 1                      (B) 2                      (C) 8                      (D) 0
80. Aluminothermic process is used in the metallurgy of which one of the following metals?  
(A) Sodium                      (B) Chromium                      (C) Potassium                      (D) Niobium
81. Arrange the following Green house gases in ascending order according to their capacity of trapping heat from the atmosphere  
(1) Methane                      (2) Carbon dioxide                      (3) Nitrous oxide                      (4) Hydrocarbon

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

82. Identify the correct code of matching:

Column – A		Column – B	
Compound		Oxidation Number of N	
(a) NH <sub>3</sub>		(e) -2	
(b) NO		(f) +2	
(c) NO <sub>2</sub>		(g) -3	
(d) N <sub>2</sub> H <sub>4</sub>		(h) +4	
a	b	c	d
<b>(A) g</b>	<b>f</b>	<b>h</b>	<b>e</b>
(B) g	h	e	f
(C) f	h	g	e
(D) e	f	g	h

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

List-I	List-II
(a) Cinnabar	1. Lead
(b) Galena	2. Copper
(c) Calamine	3. Mercury
(d) Malachite	4. Zinc

Codes:

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

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

List-I	List-II
(a) Sindri fertilizer	1. Ca(NO <sub>3</sub> ) <sub>2</sub> NH <sub>4</sub> NO <sub>3</sub>
(b) Nangal fertilizer	2. NH <sub>2</sub> CO NH <sub>2</sub>
(c) Nitrolim	3. (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>
(d) Carbamide	4. CaCN <sub>2</sub>

Codes:

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

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

List-I	List-II
(a) Nylon - 66	1. Isoprene
(b) Bakelite	2. Condensation polymer
(c) Teflon	3. Tetraluoro ethylene
(d) Natural rubber	4. Thermosteing polymer

Codes:

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

86. Manure is an organic substance and is prepared by

- (A) Decomposition of Plant and Animal waste**
- (B) Decomposition of Ammonia
- (C) Adding Ammonia to carbondioxide
- (D) Mixing calcium with Urea

87. The purity of ornamental gold is given by

- (A) Carat value** (B) pH value
- (C) Acidic value (D) Basic value

88. (I)  $H_2CO_3$  (Carbonic acid) is used in soft drinks or aerated drinks.

(II) Sodium Benzoate is not used as food preservative

- (A) I only** (B) II only (C) Both I and II (D) Neither I nor II

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

List-I	List-II
(a) Water	1. $H_2SO_4$
(b) Sulphuric acid	2. $Al_2(SO_4)_3$
(c) Calcium Carbonate	3. $CaCO_3$
(d) Aluminium sulphate	4. $H_2O$

Codes:

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

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

List-I	List-II
Elements	Valency
(a) Bromine	1. 2
(b) Barium	2. 1
(c) Carbon	3. 3
(d) Aluminium	4. 4

Codes:

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

91. The one which is used in dentistry is:

- (A) Plaster of paris**                      (B) Lime stone                      (C) China clay                      (D) Silica

92. Preparation of ammonia from nitrogen and hydrogen is a

- (A) Irreversible reaction                      **(B) Reversible reaction**  
 (C) Fast reaction                      (D) Side reaction

93. Lewis bases are:

- (1) Electron donors (2) Electron acceptors  
(3) Electron rich compounds (4) Negatively charged ions

Choose the correct answer.

- (A) 1, 2 and 3 (B) **1, 3 and 4** (C) 2, 3 and 4 (D) All of these

94. The oxidation state of Ni in  $[\text{Ni}(\text{CO})_4]$  is

- (A) +4 (B) +2 (C) +3 (D) **0**

95. Which of the following statements are incorrect with respect to the allotropes of carbon?

- (I) Diamond is exactly hard while graphite is soft  
(II) Diamond is ionic but graphite is covalent  
(III) Diamond is a non-conductor but graphite is a good conductor of electricity  
(IV) Diamond has a layered structure while graphite has a network structure

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

96. The atomic symbol used for the element Tungsten is

- (A) U (B) V (C) **W** (D) Ti

97. When Aluminium is bombarded with fast neutrons it changes into Sodium with emission of particle 'x' according to the equation.



- (A) Electron (B) Proton (C) Neutron (D) **Alpha particle**

98. Consider the following statements:

- (a) Calcium is alkaline earth metal (b) Lithium is alkali metal

- (A) (a) alone is correct (B) (b) alone is correct  
(C) **Both (a) and (b) are correct** (D) Both (a) and (b) are wrong

99. Auto ionisation of  $\text{H}_2\text{O}$  leads to the formation of

- (A)  $\text{H}_3\text{O}^+$  (B)  $\text{OH}^-$  (C)  $\text{H}^+$  (D)  **$\text{H}_3\text{O}^+$  and  $\text{OH}^-$**

100. Which one of the following is not an allotrope of carbon?

(A) Diamond

(B) Graphite

(C) Fullerene

**(D) Butane**