

CHEMISTRY (2013)

41. KE (Kinetic Energy) of molecules in gases is directly proportional to:

- | | |
|----------------------------|--------------------------|
| (1) Temperature | (2) Pressure |
| (3) Temperature & Pressure | (4) Atmospheric Pressure |

42. Which of the following is not an endothermic process?

- | | |
|-----------------|-------------------|
| (1) Fusion | (2) Transpiration |
| (3) Respiration | (4) Sublimation |

43. Bose-Einstein Condensate have

- (1) Ability to be used as model black-hole
- (2) Existence at very high temperature
- (3) isolated gaseous atoms
- (4) High Kinetic Energy

Ans. (1)

44. When 500 mL ethylalcohol (pure) is mixed in 500 mL Water (pure), the volume of the mixture will be:

- | | |
|----------------|---------------------|
| (1) 1.0 L | (2) Less than 1.0 L |
| (3) Immiscible | (4) More than 1.0 L |

Ans. (4)

45. Which of the following cannot be separated by sublimation?

- | | |
|-----------------------------|----------------------------------|
| (1) Iodine and common salt | (2) Iodine and Ammonium chloride |
| (3) Camphor and common salt | (4) Naphthalene and sand |

Ans. (2)

46. Which of the following statement is not correct?

- (1) Milk is an example of colloidal solution
- (2) Colloidal solution shows electro phoresis
- (3) Colloidal solution is homogeneous mixture
- (4) Sky is blue due to Tyndall effect.

47. A mixture of blue ink and red ink can be separated by:

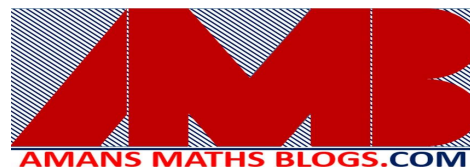
- (1) Evaporation
- (2) Distillation
- (3) Chromatography
- (4) Steam distillation

48. Which of them is solid at room temperature but becomes liquid in the palm?

- (1) Hg
- (2) Na
- (3) Mg
- (4) Ga

49. Which metal is present in Vit-B12?

- (1) Fe
- (2) Mg
- (3) Co
- (4) Mn



50. Chemical symbol of metal tungsten is:

- (1) W
- (2) Xe
- (3) Y
- (4) Zr

Ans. (1)

51. Which polymer is biodegradable?

- (1) H D P
- (2) L D P
- (3) P V C
- (4) P L A

Ans. (4)

52. Percentage of nitrogen in urea (NH_2CONH_2) is

- (1) 23.3%
- (2) 46.7%
- (3) 69.9%
- (4) 11.66%

Ans. (2)

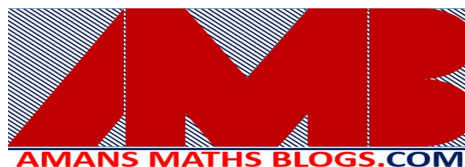
53. Which does not equal to 1 mole of nitrogen

- (1) 22.4L of N_2 at STP
- (2) 28g of nitrogen
- (3) 6.022×10^{23} nitrogen atoms
- (4) 22400c.c of N_2 at STP

Ans. (3)

54. Which one has highest calorific value?
(1) CNG (2) LPG
(3) H₂ gas (4) PNG
55. Which one of the following is used for artificail rains?
(1) AgI (2) Na Cl
(3) CaCO₃ (4) CaCl₂
56. Choose the incorrect pair
(1) NO-Neutraloxide (2) Cl₂O₇-Acidic Oxide
(3) MgO-Basic Oxide (4) P₄O₁₀-Basic Oxide
57. What is cetane number?
(1) Parameter to measure water pollution
(2) Parameter to measure air pollution
(3) Parameter to measure quality of diesel
(4) Parameter to measure quality of CNG

Ans. (3)



58. 32 moles of He contains:
(1) 8 moles of He-atoms (2) 8 atoms of He
(3) $32 \times 6.022 \times 10^{23}$ atoms of He (4) 16 molecules
59. The mass of single atom of an element 'X' is 2.65×10^{-23} g. The atomic mass and name of the element 'X' is:
(1) 16 g, Oxygen (2) 32 g, sulphur
(3) 14 g, nitrogen (4) 18 g, Fluorine

Ans. (1)

60. TEL is used as:
(1) Telephonic device (2) Antiknock agent
(3) Medicine (4) Food preservative

Ans. (2)

61. Which is acidic in nature?
(1) NaOH (2) Mg(OH)₂
(3) B(OH)₃ (4) Al(OH)₃

Ans. (3)

62. Which of the following contains maximum number of atoms?

- (1) 1g CO₂ (2) 1g N₂
(3) 1g O₂ (4) 1g CH₄

63. Galena is an ore of:

- (1) Copper (2) Zinc
(3) Lead (4) Gallium

64. Who discovered the nucleus found in atom?

- (1) J.T. Thomson (2) Goldstein
(3) Chadwick (4) Rutherford

65. Number of neutrons in 23 g sodium metal is

- (1) 72.264×10^{23} (2) 6.022×10^{23}
(3) 12 (4) 11

66. Which cell is used in wrist watches?

- (1) Leclanche cell (2) Mercury cell
(3) Daniel cell (4) Lead storage battery

67. Metal present in chloroplast is:

- (1) Iron (2) Copper
(3) Magnesium (4) Cobalt

Ans. (3)

68. Which pair is of isotones?

- (1) ^1_1H and ^2_1H (2) ^3_1H and ^3_2He
(3) ^3_2H and ^4_2He (4) ^3_1H and ^4_2He

Ans. (4)

69. Which is incorrect order of size?

- (1) $\text{Na} > \text{Na}^+$ (2) $\text{Na}^+ > \text{Mg}^+$
(3) $\text{Cl}^- > \text{Cl}$ (4) $\text{F}^- > \text{O}^{2-}$

Ans. (1)

70. 'A' element has 9 protons, 9 electrons and 10 neutrons, per atom, 'B' element has 12 protons, 12 electrons and 12 neutrons per atom. Formula of compound between 'A' and 'B' will be:
- (1) BA_2 (2) AB_2
(3) B_2A_3 (4) A_2B_3
71. Chemically the "water gas" is
- (1) H_2O (gaseous) (2) CO_2+H_2
(3) $CO_4 + H_2O$ (4) $CO + H_2$
72. Which chemical is mixed in LPG to detect its leakage?
- (1) H_2S (Hydrogen sulphide) (2) Ethylmercaptan
(3) Sulphur dioxide (4) Biogas
73. Which chemical is blended in butter for preservation?
- (1) Sodium benzoate (2) B H A
(3) Vitamin-C (4) Sodium stearate
74. The energy of an electron in an atom is:
- (1) Always negative (2) Always positive
(3) Always zero (4) All of the above

Ans. (1)

75. Given below are two statements :

- (a) Reactive metals react with oxygen forming metallic oxide.
(b) Metallic oxides are basic in nature. Choose correct option:
- (1) Statements (a) and (b) are correct
(2) Statements (a) and (b) are incorrect
(3) Statement (a) is correct and (b) is incorrect
(4) Statement (a) is incorrect and (b) is correct

Ans. (1)

76. In non-sticky cook wares which polymer is coated?

- (1) Teflon (2) CFC
(3) PVC (4) LDP

Ans. (1)

77. Which polymer is used as synthetic wool?
(1) Rayon (2) Nylon-66
(3) Acrylic polymer (4) Melmac polymer
78. Which is not a biodegradable polymer?
(1) PHBV (2) HDP
(3) PLA (4) PGA
79. The chemical formula of blue vitriol is
(1) $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ (2) $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$
(3) $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ (4) $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
80. Which of the following is not a fossil fuel?
(1) LPG (2) PNG
(3) TNG (4) CNG

Ans. (3)

