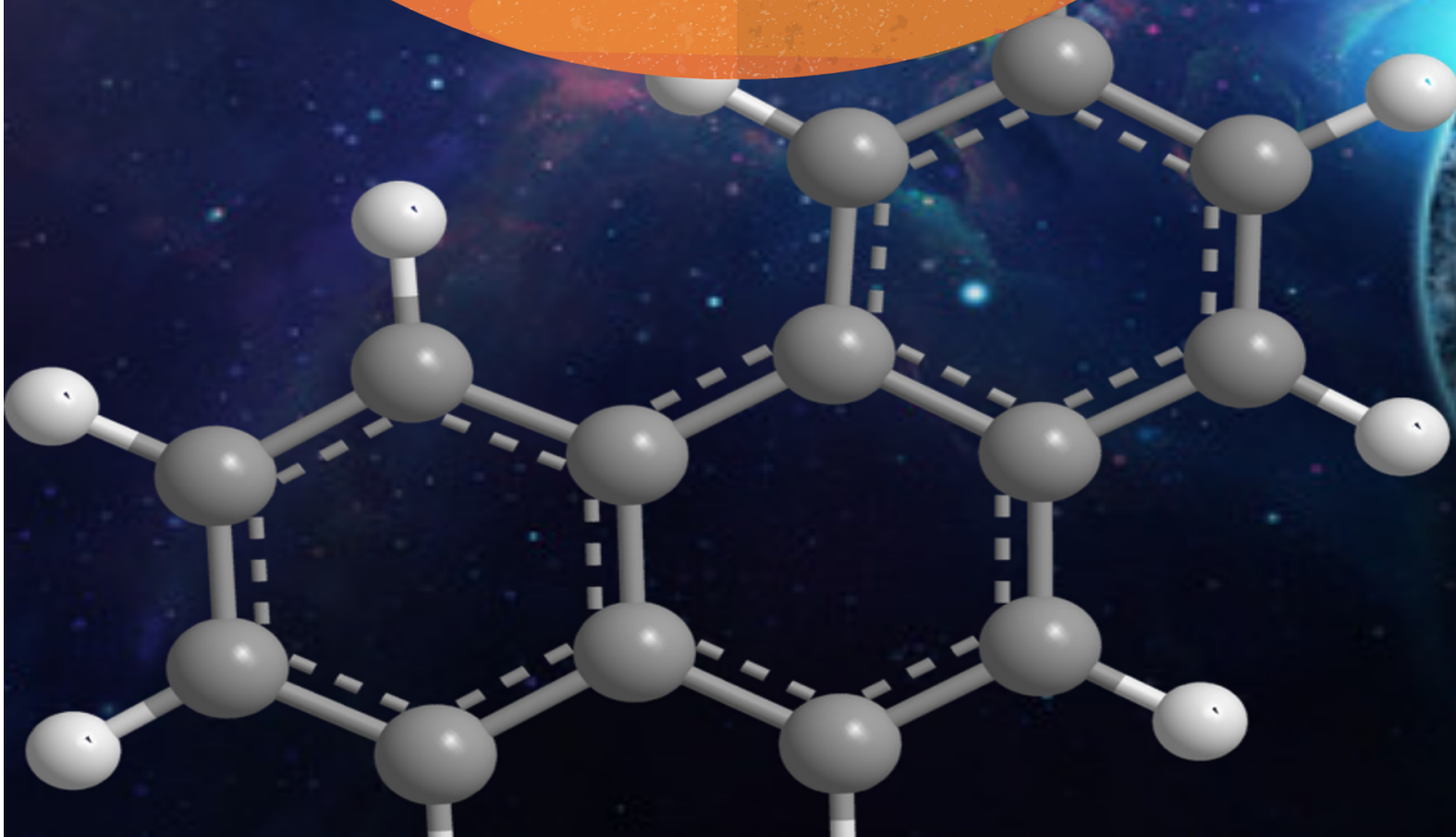




CSS Solved Chemistry MCQs

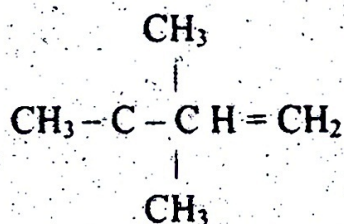


CSS Chemistry MCQs

1. Father of Chemistry is

- (a) Berthold (b) Aristotle
(c) Lavoisier (d) Priestley

2. IUPAC name of this compound is



- (a) 3,3,3 trimethyl 1-1-propane (b) 1,1,1 trimethyl 1-3-propane
(c) 3,3 dimethyl 1-1-butene (d) 1,1-dimethyl 1-3-buteoe

3. IUPAC name for CH_3CHO is

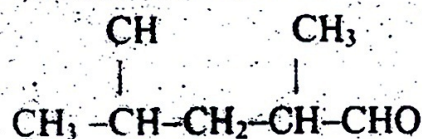
- (a) Acetaldehyde (b) Methyl aldehyde
(c) Formyl methane (d) Ethanal

4. 2-methyl-2-butene will be represented as

- (a) $\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_2 - \text{CH}_3$ (b) $\text{CH}_3 - \underset{\text{CH}_3}{\text{C}} = \text{CH} - \text{CH} - \text{CH}_3$

- (c) $\text{CH}_3 - \text{CH}_2 - \underset{\text{CH}_3}{\text{C}} = \text{CH}_2$ (d) $\text{CH}_2 = \underset{\text{CH}_3}{\text{C}} - \text{CH} = \text{CH}_2$

5. The IUPAC name of



will be

- (a) 4-Hydroxy-2-methylpentanal (b) 4-Hydroxy-2-methylpentanal
(c) 4-Hydroxy-2-methylpentanal (d) 2-Hydroxy-4-methylpentanal

6. Which one of the following IUPAC names is correct?

- (a) 2-methyl-3-ethylpentane
(b) 2-ethyl-3-methylpentane
(c) 3-ethyl-2-methylpentane
(d) 3-methyl-2-ethylpentane

15. Which reagent brings about the conversion of carboxylic acids into esters?
- (a) C_2H_5OH (b) dry $HCl + C_2H_5OH$
 (c) $LiAlH_4$ (d) $Al(OC_2H_5)_3$

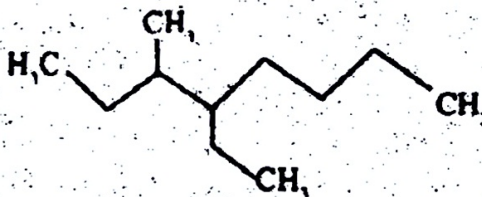
16. The incorrect IUPAC name is
- (a) $CH_3COCH(CH_3)_2$ 2-methyl-3-butanone
 (b) $(CH_3)_2CH-CH-CH_3$ 2,3-dimethylpentane



- (c) $CH_3 - C \equiv CCH(CH_3)_2$ 4-methyl-2-pentyne
 (d) $CH_3-CHCl-CHBr-CH_3$ 2-bromo-3-chlorobutane
17. In steam distillation of toluene, the pressure of toluene vapour is
- (a) Equal to pressure of barometer (b) Less than pressure of barometer
 (c) Equal to vapour pressure to that of toluene in simple distillation
 (d) More than vapour pressure of toluene in simple distillation.

18. IUPAC name of the following is
- $$CH_2 = CH - CH_2 - CH_2 - C \equiv CH$$
- (a) 1, 5-hexenyne (b) 1-hexene-5-yne
 (c) 1-hexyne-5-ene (d) 1, 5-hexynene

19. Name of the compound given below is


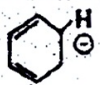





- (a) 5-ethyl-6-methyloctane (b) 4-ethyl-3-methyloctane
 (c) 3-methyl-4-ethyloctane (d) 2,3-diethylheptane
20. The IUPAC name of the compound represented by the formula
- $$H_2C = CH - CH_2 - CH = CH - CH - CH_3$$
- $$|$$
- $$CH_3$$

- (a) 5-isopropyl-4-pentene (b) 2-methyl-3-heptene
 (c) 1-isopropyl-3-pentene (d) 6-methyl-4-heptene
21. The IUPAC name of the compound having the formula CCl_3CH_2CHO is
- (a) 1, 1, 1-trichloropropanal (b) 1, 2, 1-dichloromethanal
 (c) 2, 2, 2-trichloropropanal (d) 3, 3, 3-trichloropropanal

22. Fractional distillation is used in
- (a) Crude oil (b) Coal tar
 (c) Petroleum (d) All of these

23. The IUPAC name $(CH_3)_3 - C - CH = CH_2$ is
- (a) 2,2-dimethyl-but-3-ene (b) 2,2-dimethyl-pent-4-ene
 (c) 3, 3-dimethyl-but-1-ene (d) Hex-1-ene

24. Which of the following is not aromatic?
- (a) Benzene (b) Cyclooctatetraenyl dianions
(c) Tropylium cation (d) Cyclopentadienyl anion
25. The IUPAC name of the compound $\text{CH}_3 - \underset{\text{OH}}{\text{C}} = \text{CH} - \text{CH}_2 - \text{COOH}$ is
- (a) Hydroxy pentenoic acid (b) 4-hydroxy-3-pentenoic acid
(c) 4-hydroxy-4-pentenoic acid
(d) 4-hydroxy-4-methyl-3-ene-pentanoic acid
26. Assertion: The energy of an electron is largely determined by its principal quantum number. Reason: The principal quantum number (n) is a measure of the most probable distance of finding the electrons around the nucleus.
- (a) A (b) B
(c) C (d) D
27. Which ion shows aromatic character?
- (a)  (b) 
(c)  (d) 
28. IUPAC name of  is
- (a) 3-methyl cyclohexene (b) 1-methyl cyclohex-2-ene
(c) 6-methyl cyclohexene (d) 1-methyl cyclohex-5-ene
29. Separation of two substances by fractional crystallisation depends upon their differences in:
- (a) Densities (b) Volatility
(c) Solubility (d) Crystalline shape
30. The IUPAC name of the compound $(\text{CH}_3)_2\text{CHCH} = \text{CHCH}_2\text{COOH}$ is:
- (a) 5-methyl-3-hexenoic acid (b) 4-methyl-2-hexenoic acid
(c) 4-isopropyl-butenoic acid (d) 5-carboxyl-2methylpentene
31. Fractional distillation is used in.
- (a) Petroleum (b) Coal tar
(c) Crude oil (d) All of these
32. Aniline is usually purified by
- (a) Chromatographic technique (b) Steam distillation
(c) By addition of oxalic acid (d) Fractional crystallization
33. Which of the following methods is not used for purification of liquids?
- (a) Chromatography (b) Steam distillation
(c) Distillation (d) Sublimation

34. The IUPAC name of the compound
 $\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \text{CH} = \text{CH} - \text{CH}_2\text{OH}$ is

- (a) 4-Methyl-pent-2-en-1-ol (b) 2-Methyl-4-pentenol
 (c) 4-Methyl-2-pentenol (d) 2-Methyl-4-en-1-ol

35. Distillation under reduced pressure is used to purify liquids which
 (a) Are explosives (b) Are highly volatile
 (c) Decompose below their boiling point (d) Have high boiling point

36. A mixture of camphor and benzoic acid can be easily separated by
 (a) Fractional crystallization (b) Chemical method
 (c) Sublimation (d) Extraction with solvent

37. A mixture of benzene and aniline can be separated by
 (a) Hot water (b) Dil HCl
 (c) Dil NaOH (d) Alcohol

38. The IUPAC name of $\text{CH}_3 - \underset{\text{OH}}{\text{CH}} - \text{CH}_2 - \underset{\text{CH}_3}{\text{CH}}\text{CHO}$ is
 (a) 4-Hydroxy-2-methylpentanal (b) 4-Hydroxy-4-methylpentanal
 (c) 2-Methyl-pent-4-ol-1-al (d) None of these

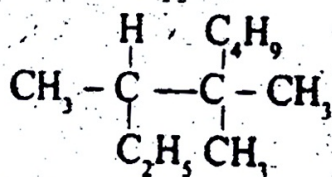
39. The IUPAC name of $\text{C}_2\text{H}_5\text{CONH}_2$ is
 (a) Methanamide (b) Benzamide
 (c) Propanamide (d) Ethanamide

40. Which of the following processes is not used for the purification of solid impurities?
 (a) Distillation (b) Sublimation
 (c) Crystallisation (d) Steam distillation

41. IUPAC name of the compound
 $\text{CH}_3 - \text{CH} = \text{C} - \text{CH}_3$

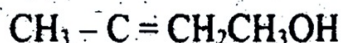
- CH_2CH_3 is
 (a) 3-methyl-3-pentene (b) 2-ethyl-2-butene
 (c) 3-ethyl-2-butene (d) 3-methyl-2-pentene

42. IUPAC name of



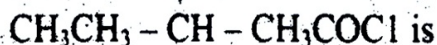
- (a) 2-butyl-2-methyl-3-ethylbutane
 (b) 2-ethyl-3, 3-dimethylheptane
 (c) 3, 4, 4-trimethylheptane
 (d) 3, 4, 4-trimethyloctane

43. The IUPAC name of the compound is



- (a) 2-methyl-2-butenol (b) 2-methyl-3-butenol
(c) 3-methyl-2-butenol (d) 3-methyl-but-2-enol

44. IUPAC name for

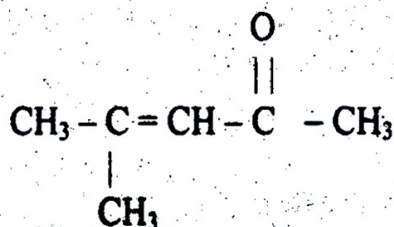


- (a) 3-methyl pentanoyl chloride (b) 3methyl butanoy chloride
(c) 1-chloro-3-ethylbutanone (d) 1-chloro-3-methyl pentanone

45. Steam distillation is used for purification of

- (a) Inorganic liquids (b) Organic liquids
(c) Covalent compounds (d) Volatile liquids

46. Write the IUPAC name of



- (a) 4-Methylpent-3-en-2-one (b) 2-Methylpent-3-en-2-one
(c) 3-Methylpent-2-en-1-one (d) None of these

47. Chromatography is used to separate

- (a) Small samples of mixtures (b) Plant pigments
(c) Dye stuffs (d) All the above

48. Purity of organic compounds can be determined by knowing

- (a) Melting point (b) Mixed melting point
(c) Solubility (d) None of the above

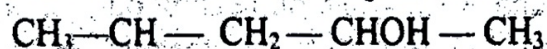
49. Which of the following undergoes sublimation?

- (a) ZnCl_2 (b) CuCl_2
(c) AgCl (d) NH_4Cl

50. A mixture contain benzene & chlorobenzene is separated by

- (a) Sublimation (b) Separating funnel
(c) Crystallization (d) Distillation

51. IUPAC name of the compound is



- (a) 4-Methyl-3-hexanol (b) Heptanol

(c) 4-Methyl-2-hexanol (d) None of these

52. The IUPAC name of succinic acid is.....

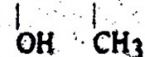
53. Which of the following compounds has wrong IUPAC name?

(a) $\text{CH}_2\text{-CH}_2\text{-CH}_2\text{-COO-CH}_2\text{CH}_3 \rightarrow$ ethyl butanoate

(b) $\text{CH}_3\text{-CH-CH}_2\text{-CHO} \rightarrow$ 3-methyl -butanal



(c) $\text{CH}_3\text{-CH-CH-CH}_3 \rightarrow$ 2-methyl-3-butanol



(d) $\text{CH}_3\text{-CH-C(=O)-CH}_2\text{-CH}_3 \rightarrow$ 2-methyl-3-pentanone



54. The IUPAC name of $\text{CH}_3\text{COCH}(\text{CH}_3)_2$ is

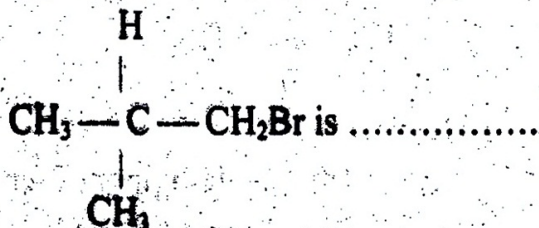
(a) Isopropylmethylketone

(b) 2-methyl-3-butanone

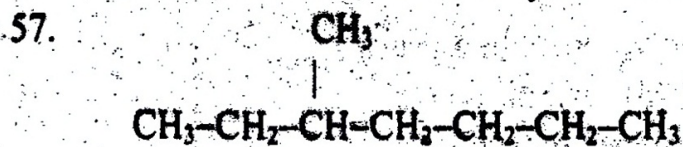
(c) 4-methylisopropylketone

(d) 3-methyl-2-butanone

55. The IUPAC name of the compound



56. The trivial name of 4-methylaniline is



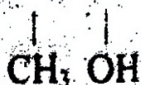
IUPAC name is

58. CH_3
|



The IUPAC name of the compound is

59. The IUPAC name for $\text{CH}_3\text{-CH-CH-CH}_3$



is

60. A mixture of some solid organic compound A, B, C, D, on heating only 'C' changes from solid to vapour state. 'C' can be separated from the rest in the mixture by

(a) Distillation

(b) Sublimation

(c) Fractional distillation

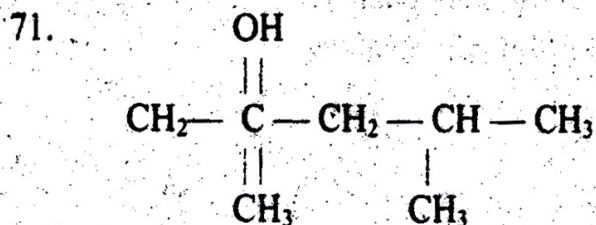
(d) Crystallization

61. The IUPAC name of the compound having the formula $(\text{CH}_3)_3\text{C-CH}=\text{CH}_2$ is

(a) 3, 3, 3-trimethyl-1-propane

(b) 3, 3-dimethyl-1-propene

- (c) 1, 1, 1 trimethyl-3-propane (d) 1, 1 dimethyl-3-butene
62. A solid organic compound X on heating is converted directly to vapour phase which on cooling solidifies. The best method for purifying X is by:
 (a) Distillation (b) Distillation at reduced pressure
 (c) Sublimation (d) Steam distillation
63. 18 C-H and 7 C-C sigma bonds are present in
 (a) Cyclohexane (b) 3, 3 dimethylpentane
 (c) 2, 2,3-trimethylpentane (d) n-heptane
64. The IUPAC name of $(C_2H_5)_4 C$ is
 (a) Tetracthyl methane (b) 2, 2-dimethylpentane
 (c) 3, 3-diethylpentane (d) Neopentane
65. Benzene is a monocyclic compound. It is aromatic because it contains
 (a) 6 carbons and 6 hydrogens (b) 3 pi bonds
 (c) 6 p orbitals (d) $(4n+2) n$ electrons
66. A solid organic compound Y on heating is converted to vapour state directly, which on cooling solidifies. Which of the following is the correct method of purifying Y?
 (a) Sublimation (b) Distillation
 (c) Distillation at reduced pressure (d) Steam distillation
67. The structural formula of 2-methyl-2-butene is
 (a) $CH_3 - CH(CH_3) - CH = CH_2$ (b) $CH_3 - CH_2 - C(CH_3) = CH_2$
 (c) $CH_3 - CH = CH - CH_3$ (d) $CH_3 - CH = C(CH_2) - CH_3$
68. Which one of the following compounds is an isomer of 1-butanol?
 (a) 2-methyl-2-butanol (b) 2-methyl-1-butanol
 (c) 3-methyl-2-butanol (d) 2-methyl-1-propanol
69. The functional group present in 3-methyl butanal is
 (a) $-CHO$ (b) $\begin{array}{c} O \\ || \\ -C- \end{array}$
 (c) $-CH_2OH$ (d) $-COOH$
70. 2, 3 Dimethyl hexane contains tertiary secondary and primary carbon atoms respectively.
 (a) 2, 2, 4 (b) 2, 4, 3
 (c) 4, 3, 2 (d) 3, 2, 4



IUPAC name is

- (a) 2, 4-dimethylpentan-2-ol
 (b) 2, 4dimethyl pentanol-2
 (c) 2, 2 dimethyl butanol-2
 (d) Butanol-2

72. IUPAC name of $\text{CH}_3 - \text{CH} = \text{CH} - \text{C} \equiv \text{CH}$ is
 (a) Pent-2-en-4-yne (b) Pent-3-en-1-yne
 (c) Pent-3-yne-1-en (d) Pent-2-yne-1-en.
73. 'Activated charcoal' is employed to remove colouring matter from pure substances it does so by'
 (a) Bleaching (b) Oxidation
 (c) Reduction (d) Adsorption
74. IUPAC name of the following compound will be

$$\begin{array}{c} \text{CH}_3 - \text{CH} = \text{C} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3 \\ | \\ \text{CH}_2 - \text{CH}_2 - \text{CH}_3 \end{array}$$
- (a) 3-ethyl 2-hexene (b) 3-propyl 2-hexene
 (c) 3-propyl-3-hexene (d) 4-ethyl-4-hexene
75. The IUPAC name of tertiary butyl chloride is
 (a) Butyl chloride (b) Chlorobutane
 (c) 2-Chlorobutane (d) 2-Chloro-2-methylbutane
76. The IUPAC name of the following is
 $\text{CH}_3\text{C}(\text{CH}_3)_2\text{CH}_2\text{CH} = \text{CH}_2$
 (a) 2, 2 dimethyl-4-pentene (b) 4, 4-dimethyl-1-pentene
 (c) 1, 1, 1-trimethyl-3-butene (d) 4, 4, 4-trimethyl-1-butene.
77. IUPAC name of compound
 $\text{CH}_3 - \text{CH} = \text{C} - \text{CH}_2 - \text{CH}_3$ is

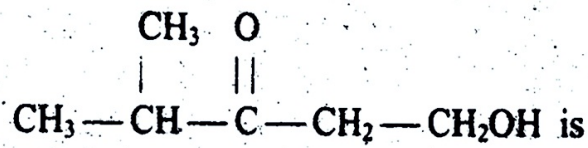
$$\begin{array}{c} | \\ \text{CH}_2 - \text{CH}_2 - \text{CH}_3 \end{array}$$
- (a) 3-ethyl-2-hexene (b) 4-ethyl-2-hexene
 (c) 4-ethyl-4-hexene (d) 3-propyl-2-hexene
78. The IUPAC name of the Compound

$$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_3 - \text{CH} - \text{CH} - \text{CH}_3 \\ | \\ \text{C}_2\text{H}_5 \end{array}$$
 is:
- (a) 2-ethyl-3-methylbutane (b) 2, 3-dimethylpentane
 (c) 2-methyl-3-ethylbutane (d) 3, 4-dimethylpentane
79. The IUPAC name of

$$\begin{array}{c} \text{CH}_2 - \text{CH} - \text{CH}_3 \\ | \\ \text{CH}_3 \end{array}$$
- (a) Butane (b) Isopropyl methane
 (c) 2-methylpropane (d) Dimethyl ethane
80. IUPAC name of
 $\text{CH}_2 = \text{CH} - \text{CH}_2\text{Cl}$ is

- (a) Allyl chloride
- (b) 1-chloro-3-propene
- (c) Vinyl Chloride
- (d) 3-chloro-1-propene

81. The IUPAC name of

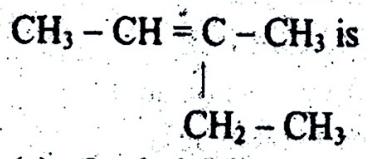


- (a) 1-hydroxy-4-methyl-3-pentanone
- (b) 2-methyl-5-hydroxy-3-pentanone
- (c) 4-methyl-3-oxo-1-pentanol
- (d) hexan-1-ol-2-one

82. The IUPAC name of CH_3CHO is:

- (a) Ethane
- (b) Ethanol
- (c) Ethanal
- (d) Acetaldehyde

83. IUPAC name of the compound

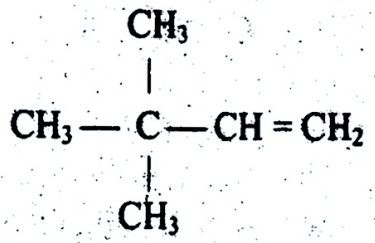


- (a) 2-ethyl-2-butene
- (b) 3-ethyl-2-butene
- (c) 3-methyl-3-pentene
- (d) 3-methyl-2-pentene

84. The IUPAC name of crotonaldehyde is:

- (a) prop-2-ene-1-al
- (b) propenal
- (c) but-2-enal
- (d) butenal

85. IUPAC name of the following compound is:

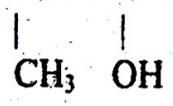


- (a) 1, 1, 1 trimethyl-2-propene
- (b) 3, 3 dimethyl-1-butene
- (c) 3, 3, 3trimethyl-1-propene
- (d) 2, 2 dimethyl-3-butene

86. The compound which has one isopropyl group is:

- (a) 2, 2, 3, 3 tetramethylpentane
- (b) 3, 3 dimethylpentane
- (c) 2, 2, 3 trimethylpentane
- (d) 2-methylpentane

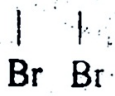
87. The name of $\text{H}_3\text{C} - \text{CH} - \text{CH} - \text{CH}_3$ according



to IUPAC nomenclature system is

- (a) Butanol
- (b) 2-Methyl-butan-3-ol
- (c) 3-Methyl-butan-2-ol
- (d) Pentanol

88. The name of $\text{Cl H}_2\text{C} - \text{C} = \text{C} - \text{CH}_2\text{Cl}$

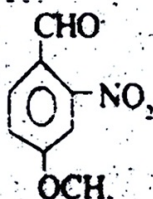


according to IUPAC nomenclature system is

- (a) 2, 3-dibromol, 4dichlorobut-2-ene
- (b) 1,4-dibromo-2,3-dichlorobut-2-ene

89. (c) Dichlorodibromobutene
The correct IUPAC name for

(d) Dichlorodibromobutane



is:

- (a) 4-methoxy-2-nitrobenzaldehyde (b) 4-methoxy-6-nitrobenzaldehyde
(c) 4-formyl-1,3-dinitroanisole (d) 2-formyl-5-methoxynitrobenzene

90. The correct IUPAC name for $\text{CH}_2 = \text{CH} - \text{CH} - \text{CH}_2 - \text{C} \equiv \text{CH}$ is

- (a) Pent-1-en-1-yne (b) Pent-1-en-4-yne
(c) Pent-1,4-enyne (d) Pent-1,4-enyne

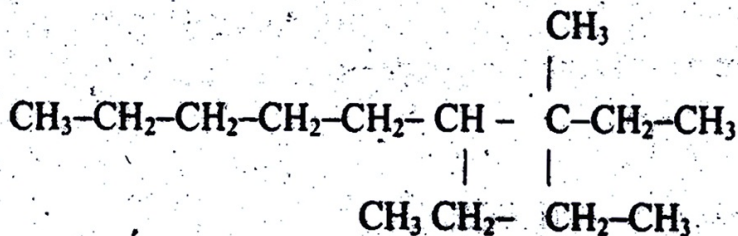
91. The name of compound having the structure $\text{ClCH}_2\text{CH}_2\text{COOH}$ is

- (a) 3-chloropropanoic acid (b) 2-chloropropanoic acid
(c) 2-chloroethanoic acid (d) Chlorosuccinic acid

92. The structural formula of isobutyl chloride is

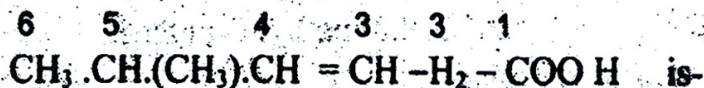
- (a) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{Cl}$ (b) $(\text{CH}_3)_2\text{CHCH}_2\text{Cl}$
(c) $\text{CH}_3\text{CH}_2\text{CHClCH}_3$ (d) $(\text{CH}_3)_3\text{CCl}$

93. The correct IUPAC name for the compound



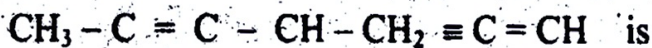
- (a) 3,4-dimethyl-3-n-propylnonane (b) 6,7-dimethyl-7-ethyldecane
(c) 6,7-dimethyl-7-n-propylnonane (d) 4,5-dimethyl-4-ethyldecane

94. The I.U.P.A.C. name for





- (a) 5-methyl-3-hexenoic acid (b) 5-carboxyl-2-methylpent-4-ene
(c) 4-isopropylbut-3-ene-1-oic acid (d) None of these

95. The IUPAC name of



- (a) 6-chloro-4-ethyl-5-methyl-hept-5-en-1-yne
(b) 6-chloro-4-ethyl-5-methyl-hept-1-yne-5-ene
(c) 2-chloro-4-ethyl-3-methyl-hept-2-en-6-yne
(d) 2-chloro-4-ethyl-3-methyl-hept-6-yne-2-ene

96. The compound  is known by which of the following names?
- (a) Bicyclo-[2, 2, 2] octane (b) Bicyclo - [2, 2, 1] octane
(c) Bicyclo -[1,2, 1] octane (d) Bicyclo -[1, 1, 1] octane
97. The IUPAC name of the compound having the formula $\text{Cl}_3\text{C} \cdot \text{CH}_2\text{CHO}$ is:
- (a) 3, 3, 3-trichloropropanal (b) 1, 1, 1-trichloropropanal
(c) 2, 2, 2-trichloropropanal (d) Chloral
98. The IUPAC name of the compound is:
- $$\text{CH}_3 - \text{CH} - \text{CH}_2 - \text{CH}_2 - \text{Cl}$$
- $$\begin{array}{c} | \\ \text{CH}_3 \end{array}$$
- (a) 1-chloro-3-methylbutane (b) 2-methyl-4-chlorobutane
(c) 2-methyl-1-chlorobutane (d) 1-chlorobutane
99. The correct IUPAC name of  is
- H - C - CHO is
- (a) Formyl methanal (b) 1, 2-ethanedione
(c) Formyl methanoate (d) 1, 2-ethanedial
100. The IUPAC name of $\text{CH}_3\text{OC}_2\text{H}_5$ is:
- (a) Methyl ethylether (b) Ethylmethyl ether
(c) Methoxyethane (d) Ethoxymethane

KEY TO MCQs

1. (c)	2. (c)	3. (d)	4. (b)	5. (b)	6. (a)	7. (d)	8. (c)
9. (d)	10. (d)	11. (c)	12. (b)	13. (a)	14. (a)	15. (b)	16. (a)
17. (b)	18. (b)	19. (b)	20. (b)	21. (d)	22. (d)	23. (c)	24. (b)
25. (b)	26. (a)	27. (a)	28. (a)	29. (c)	30. (a)	31. (d)	32. (b)
33. (d)	34. (a)	35. (c)	36. (b)	37. (b)	38. (a)	39. (c)	40. (a)
41. (d)	42. (d)	43. (c)	44. (a)	45. (d)	46. (a)	47. (d)	48. (a)
49. (d)	50. (d)	51. (c)	52. (⁵²)	53. (c)	54. (d)	55. (⁵⁵)	56. (⁵⁶)
57. (⁵⁷)	58. (⁵⁸)	59. (⁵⁹)	60. (b)	61. (b)	62. (c)	63. (c)	64. (c)
65. (d)	66. (a)	67. (d)	68. (d)	69. (a)	70. (a)	71. (a)	72. (b)
73. (d)	74. (a)	75. (d)	76. (b)	77. (a)	78. (b)	79. (c)	80. (d)
81. (a)	82. (c)	83. (d)	84. (c)	85. (b)	86. (d)	87. (c)	88. (a)
89. (a)	90. (b)	91. (a)	92. (b)	93. (d)	94. (a)	95. (c)	96. (a)
97. (a)	98. (a)	99. (d)	100. (c)				

⁵²

butan - 1, 4 - dionic acid

⁵⁵

1 - Bromo - 2 - methyl propane

⁵⁶

p - methyl aniline

⁵⁷

3 - methyl heptane

⁵⁸

2 - methyl - 1 - butane or 2 - methyl nut - 1 - ene

⁵⁹

3 - methyl - 2 - butanol