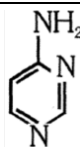


CLASSIFICATION

1. The hybrid state of C atoms which are attached to a single bond with each other in the following structure are: $\text{CH}_2=\text{CH}-\text{C}\equiv\text{CH}$
 (1) sp^2, sp (2) sp^3, sp (3) sp^2, sp^2 (4) sp^2, sp^3
2. The third member of the homologous series of aliphatic aldehydes has the structure :-
 (1) $\text{CH}_3\text{CH}_2\text{CHO}$ (2) $\text{CH}_3(\text{CH}_2)_2\text{CHO}$
 (3) $\text{CH}_3\text{COCH}_2\text{CH}_3$ (4) CH_3COCH_3
3. Molecular formula $\text{C}_4\text{H}_8\text{O}_2$ represents :-
 (1) An acid only (2) An ester only
 (3) An alcohol only (4) An acid and an ester also
4. The higher homologue of dimethylamine ($\text{CH}_3-\text{NH}-\text{CH}_3$) has the structure :-
 (1) $\text{CH}_3-\text{N}-\text{CH}_3$ (2) $\text{CH}_3-\text{CH}_2-\text{CH}_2-\text{NH}_2$
 $\quad \quad \quad |$
 $\quad \quad \quad \text{CH}_3$
 (3) $\text{CH}_3-\text{NH}-\text{CH}_2-\text{CH}_3$ (4) $\text{CH}_3-\text{CH}-\text{CH}_3$
 $\quad \quad \quad |$
 $\quad \quad \quad \text{NH}_2$
5. The third member of the family of alkenynes has the molecular formula :-
 (1) C_6H_6 (2) C_5H_6 (3) C_6H_8 (4) C_4H_4
6. The number of olefinic bonds in the given compound is/are:-
 $\text{CH}_2=\text{CH}-\underset{\text{O}}{\underset{||}{\text{C}}}-\text{CH}=\text{CH}-\text{C}\equiv\text{N}$
 (1) 2 (2) 3 (3) 1 (4) 4
7. The number of acetylenic bonds in the given compound is/are:-
 $\text{HC}\equiv\text{C}-\underset{\text{O}}{\underset{||}{\text{C}}}-\text{CH}=\text{CH}-\text{C}\equiv\text{N}$
 (1) 2 (2) 3 (3) 1 (4) 4
8. The number of C-atoms in second member of an ester is/are:-
 (1) 2 (2) 3 (3) 4 (4) 5
9. Which of the following is an example of symmetrical or simple ether:-
 (1) $\text{CH}_3-\underset{\text{O}}{\underset{||}{\text{C}}}-\text{CH}_3$ (2) $\text{CH}_3-\text{O}-\text{CH}_2-\text{CH}_3$
 (3) $\text{CH}_3-\text{CH}_2-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$ (4) $\text{CH}_3-\underset{\text{CH}_3}{\text{CH}}-\text{O}-\underset{\text{CH}_3}{\text{CH}}-\text{CH}_3$
10. The number of hetero atoms present in the following compound is/are:

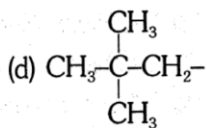
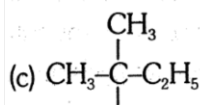
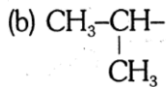
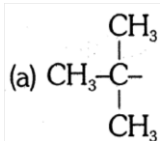


- (1) 2 (2) 3 (3) 1 (4) 4

11. The minimum number of carbon atoms in an alkane having four primary carbon atoms are :-
 (1) 4 (2) 8 (3) 5 (4) 6
12. Which of the following compound has sp-hybridised carbon atom:-
 (1) CH₃COOH (2) CH₃COCH₃
 (3) CH₃CH₂CN (4) CH₂=CH-CH-CH₂
13. In compound HC≡C-CH₂-CH=CH-CH₃, the C₂-C₃ bond is the type of :-
 (1) sp-sp² (2) sp³-sp³ (3) sp-sp³ (4) sp²-sp²
14. Which of the following represents the given mode 3 of hybridization sp²-sp²-sp-sp from left to right :-
 (1) H₂C=CH-C≡CH (2) HC≡C-C≡CH
 (3) H₂C=CH-CH=CH₂ (4) H₂C=C=C=CH₂
15. Which of the following pair of compounds are homologues:-
 (1) 1-Propanol & 2-Propanol (2) Ethanol & Propanal
 (3) Acetone & Acetaldehyde (4) Acetic acid & Butyric acid
16. Which of the following homologous series has incorrect general formula:-
 (1) Alkyne C_nH_{2n-2}
 (2) Alkanol C_nH_{2n+2}O
 (3) Alkyne C_nH_{2n+1}O
 (4) Carboxylic C_nH_{2n}O₂
17. The Cl-C-Cl bond in 1,1,2,2-tetrachloro ethene and tetrachloro methane respectively are:-
 (1) 120° and 109.5° (2) 90° and 109.5°
 (3) 109.5° and 90° (4) 109.5° and 120°
18. Minimum number of carbon atoms present in an ester are:-
 (1) 2 (2) 1 (3) 4 (4) 3
19. Which of the following has general formula C_nH_{2n}
 (1) Only Alkyne (2) Only Alkane
 (3) Aromatic hydrocarbon (4) Alkene & cyclic Alkane
20. Which compound has alkyne group
 (1) C₇H₁₄ (2) C₁₀H₂₂ (3) C₉H₁₆ (4) C₁₆H₃₂

COMMON AND DERIVED NAME

21. Which of the following are tertiary radicals:-



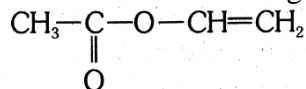
(1) a and b

(2) band c

(3) a and c

(4) band d

22. Common name of the given compound is :-



(1) vinyl acetate

(2) acryl Acetate

(3) methyl acrylate

(4) Vinyl ethanoate

23. A primary amine has amino group ($-\text{NH}_2$) attached to:-

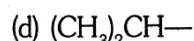
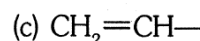
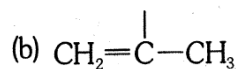
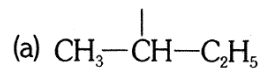
(1) A primary carbon atom only

(2) A secondary carbon atom only

(3) A tertiary carbon atom only

(4) A primary, secondary or tertiary carbon atom

24. Which of the following are secondary radicals :-



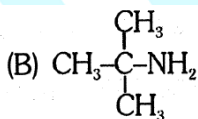
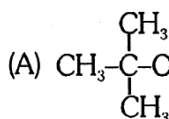
(1) a, b, c

(2) a, d, c

(3) b, c, d

(4) a, b, d

25. Examine the following structures :-



Which of the following statement is correct :-

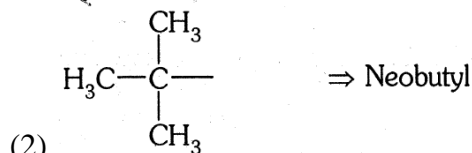
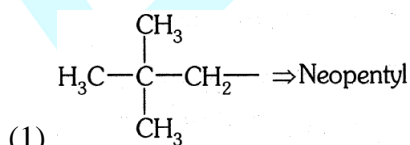
(1) A is tertiary alcohol while B is tertiary amine

(2) A is primary alcohol while B is primary amine

(3) A is tertiary alcohol while B is primary amine

(4) A is primary alcohol while B is tertiary amine

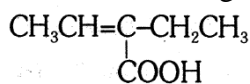
26. Which of the following is not a correct match

(3) $\text{HC}\equiv\text{C}-\text{CH}_2- \Rightarrow$ Propargyl(4) $\text{CH}_2=\text{CH}-\text{CH}_2- \Rightarrow$ Allyl

IUPAC NAME

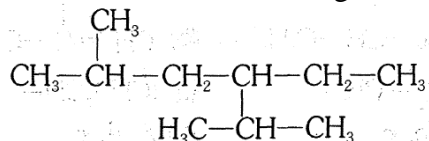
27. The IUPAC name for isobutyl chloride is :
- (1) 2-Methyl-2-chloro butane (2) 2-Chloro-2-methyl butane
 (3) 1-Chloro-2-methyl propane (4) 2-Methyl-3-chloro propane

28. IUPAC name of given compound is :



- (1) 3-carboxy-2-pentene (2) 2-Ethylidene butanoic acid
 (3) 2-Ethyl-2-butenic acid (4) 3-Ethyl-2-buten-4-oic acid

29. The IUPAC name for the given structure is :-

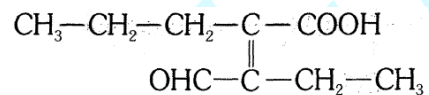


- (1) 3-Isopropyl-4-methylhexane (2) 4-Isopropyl-3-methylhexane
 (3) 3-Ethyl-2,5-dimethylhexane (4) 2-Ethyl-3-isopropylpentane

30. The IUPAC name for $\text{CH}_3-\overset{\text{O}}{\parallel}{\text{C}}-\text{NH}_2$ and $\text{CH}_3-\overset{\text{O}}{\parallel}{\text{C}}-\text{Cl}$ are :-

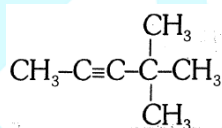
- (1) 1-Amino-1-oxo ethane, 1-chloro ethanol
 (2) 1-Amino ethanal, acetyl chloride
 (3) 1-Oxoethanamine, ethanoyl chloride
 (4) Ethanamide, Ethanoyl chloride

31. The number of carbon atoms in the principle chain of the given compound are :-



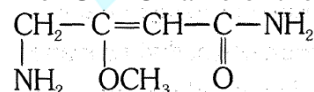
- (1) 7 (2) 5 (3) 4 (4) 6

32. The IUPAC name of given compound is :-



- (1) Methyl tertiarybutyl acetylene
 (2) t-Butyl propyne
 (3) 4,4-Dimethyl-2-pentyne
 (4) 1,3,3,3-Tetramethyl ethyne

33. The IUPAC name of the compound is :



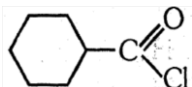
- (1) 4-Amino-2-methoxy-1-amino-2-butene
 (2) 4-Amino-3-methoxy-2-butenamide
 (3) 2-Methoxy-1,4-diamino-2-butenal

(4) 1-Amino-2-methoxy-3-cyano propene

34. The IUPAC name of $\text{CH}_3\text{-CH}_2\text{-NH-CH}_3$ is:

- (1) Methyl ethyl amine (2) 1-methyl amino ethane
(3) N-methyl ethan amine (4) N-ethyl methan amine

35. The IUPAC name for the compound is :-

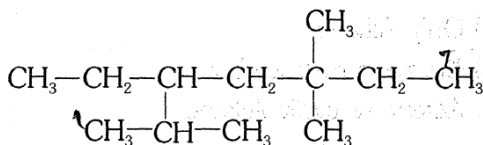


- (1) Cyclohexanoyl chloride (2) Cyclohexane carbonyl chloride
(3) 1-Chloro cyclohexanal (4) Chloro cyclohexyl methanal

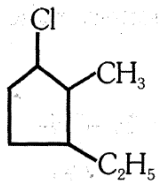
36. The IUPAC name of $\text{HC}\equiv\text{C}-\underset{\text{CH}_3}{\text{C}}=\text{CH}-\text{CH}_3$ is:-

- (1) 3-Methyl-2-pentyn-4-yne (2) 3-methyl-3-penten-1-yne
(3) 3-Methyl-4-pentyn-1-ene (4) 3-Methyl pentenyne

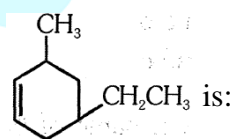
37. The IUPAC name of the structure is:-



- (1) 3-Isopropyl-5,5-dimethyl heptane
(2) 5-Ethyl-3,3,6-trimethyl heptane
(3) 3,3-Dimethyl-5isopropyl heptane
(4) 3-Ethyl-2,5,5-trimethyl heptane

38.  has the IUPAC name:-

- (1) 3-Chloro-1-ethyl-2-methyl cyclopentane
(2) 1-Chloro-3-ethyl-2-methyl cyclopentane
(3) 4-Chloro-1-ethyl-5-methyl cyclopentane
(4) All are correct

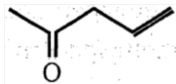
39. The IUPAC name of  is:-

- (1) 1-Methyl-5-ethyl cyclohex-2-ene
(2) 5-Ethyl-3-methyl cyclohex-1-ene
(3) 4-Ethyl-6-methyl cyclohex-1-ene
(4) 1-Ethyl-5-methyl cyclohex-3-ene

40. $\text{H}-\underset{\text{O}}{\underset{\parallel}{\text{C}}}-\text{CN}$ in IUPAC called:-

- (1) Cyano methanol
(2) 2-oxo ethane nitrile
(3) Cyano ethanol
(4) Formonitrile

41. The IUPAC name for the compound is:-



- (1) 2-Acetyl prop-1-ene
(2) Pent-1-enA-one
(3) Pent-4-en-2-one
(4) Formyl propene

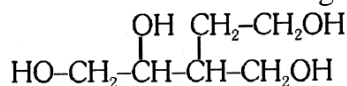
42. Which is incorrect IUPAC name:-

- (1) 3-Pentyne
(2) 3-Methyl-2-butanone
(3) 2-Ethyl-3-methyl-1-butene
(4) 3-Ethyl-2-methyl pentane

43. The IUPAC name of $\text{H}_2\text{N}-\text{C}_6\text{H}_4-\text{OCH}_3$ is:-

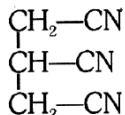
- (1) 1-Methoxy-4-amino benzene
(2) Aminophenyl methyl ether
(3) 4-Methoxy aniline
(4) None of the above

44. The IUPAC name of the given compound is:-



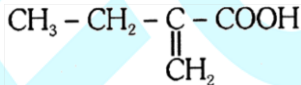
- (1) 3-Hydroxymethyl pentane-1,4,5-triol
(2) 3-Hydroxyethyl butane-1,2,4-triol
(3) 4-Hydroxyethyl-1,2,4-trihydroxy butane
(4) 3-Hydroxymethyl pentane-1,2,5-triol

45. The IUPAC name of the given compound is:-



- (1) 1,2,3-Tricarbonitrile propane
(2) Pro pane-1, 1, 1-tricarbylamine
(3) Propane-1,2,3-tricarbonitrile
(4) 3-Cyano pentane dicyanide

46. Number of carbon atoms in the principle carbon chain in the given compound are :-

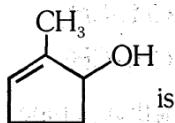


- (1) 4
(2) 3
(3) 2
(4) 5

47. Wrong IUPAC-name is:-

- (1) $\text{CH}_3\text{CH}_2\text{CONH}_2$ Propanamide
(2) $\text{CH}_3\text{CH}_2\text{COOCH}_3$ Methyl propqnoate
(3) $\text{CH}_3-\overset{\text{CH}_3}{\text{CH}}-\text{CH}=\text{CH}-\text{CH}_3$ 2-Methyl pent-3- ene
(4) $\text{CH}_3\text{CH}_2-\text{O}-\underset{\begin{array}{c} | \\ \text{CH}_2-\text{CH}_3 \end{array}}{\text{CH}}-\text{CH}_3$ 2-Ethoxy butane

48. The IUPAC name of the compound

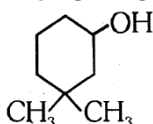


- is
- (1) 2-Methyl cyclopent-1-en-2-ol
 - (2) 3-Methyl cyclopent-2-en-1-ol
 - (3) 2-Methyl cyclopent-2-en-1-ol
 - (4) 3-Methyl cyclopent-1-en-2-ol

49. The IUPAC name of is:-

- (1) Acetic anhydride
- (2) Formyl ethanoate
- (3) Butane- 2, 4-dione
- (4) Ethanoic methanoic anhydride

50. The IUPAC name of given compound is:-



- (1) 3,3-Dimethyl-1-hydroxy cyclohexane
- (2) 1, 1-Dimethyl-3-hydroxy cyclohexane
- (3) 3,3-Dimethyl-1-cyclohexanol
- (4) 1, 1-Dimethyl-3-cyclohexanol

51. IUPAC name of $(\text{CH}_3)_2\text{CHCH}(\text{CH}_3)_2$ is :-

- (1) 2,2-Dimethyl butane
- (2) 2,3-Dimethyl butane
- (3) 2,4-Dimethyl butane
- (4) 1-Methyl pentane

52. IUPAC name of $\text{CH}_2=\text{CH}-\text{CH}_2-\text{Cl}$ is :

- (1) Allyl chloride
- (2) 1-Chloro-3-propene
- (3) 3-Chloro-1-propene
- (4) Vinyl chloride

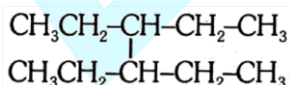
53. The IUPAC name of the following group is:-

- (1) Isopropenyl
- (2) 1-Methylethenyl
- (3) 2-Methylethynyl
- (4) None of the above

54. $\text{CH}_3-\text{CH}=\text{CH}-\text{C}\equiv\text{CH}$ has IUPAC name:

- (1) Pent-2-en-4-yne
- (2) Pent-4-yn-2-ene
- (3) Pent-1-yn-3-ene
- (4) Penh3-en-1-yne

55. The IUPAC name of the following compound



- (1) 3, 4 - Dimethyl octane
- (2) 3-sec pentyl pentane
- (3) 3, 4 - Diethyl hexane
- (4) 3, 4 - Dimethyl hexane

56. Correct IUPAC name is :

- (1) 3-Methyl-2- ethylpentane
- (2) 2-Ethyl- 3-methylpentane

(3) 3-Ethyl- 2-methylpentane

(4) 2-Ethyl- 2-methylpentane

ANSWER KEY**EXERCISE-I**

1.	(1)	2.	(1)	3.	(4)	4.	(3)	5.	(3)	6.	(1)	7.	(3)
8.	(2)	9.	(4)	10.	(1)	11.	(3)	12.	(3)	13.	(3)	14.	(1)
15.	(4)	16.	(3)	17.	(1)	18.	(1)	19.	(4)	20.	(3)	21.	(3)
22.	(1)	23.	(4)	24.	(4)	25.	(3)	26.	(2)	27.	(3)	28.	(3)
29.	(3)	30.	(4)	31.	(2)	32.	(3)	33.	(2)	34.	(3)	35.	(2)
36.	(2)	37.	(4)	38.	(2)	39.	(2)	40.	(2)	41.	(3)	42.	(1)
43.	(3)	44.	(4)	45.	(3)	46.	(2)	47.	(3)	48.	(3)	49.	(4)
50.	(3)	51.	(2)	52.	(3)	53.	(2)	54.	(4)	55.	(3)	56.	(3)