

ORGANIC CHEMISTRY

ENTHUSIAST | LEADER | ACHIEVER



EXERCISE

Classification & Nomenclature

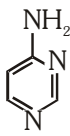
ENGLISH MEDIUM

EXERCISE-I (Conceptual Questions)

Build Up Your Understanding

CLASSIFICATION

- 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
NC0001
- 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
NC0002
- 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
NC0003
- The higher homologue of dimethylamine ($\text{CH}_3-\text{NH}-\text{CH}_3$) has the structure :-
 (1) $\text{CH}_3-\text{N}(\text{CH}_3)_2$
 (2) $\text{CH}_3-\text{CH}_2-\text{CH}_2-\text{NH}_2$
 (3) $\text{CH}_3-\text{NH}-\text{CH}_2-\text{CH}_3$
 (4) $\text{CH}_3-\text{CH}(\text{NH}_2)-\text{CH}_3$
NC0004
- 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
NC0005
- The number of olefinic bonds in the given compound is/are :-
 $\text{CH}_2=\text{CH}-\text{C}(=\text{O})-\text{CH}=\text{CH}-\text{C}\equiv\text{N}$
 (1) 2 (2) 3 (3) 1 (4) 4
NC0006

- The number of acetylinic bonds in the given compound is/are :
 $\text{HC}\equiv\text{C}-\text{C}(=\text{O})-\text{CH}=\text{CH}-\text{C}\equiv\text{N}$
 (1) 2 (2) 3 (3) 1 (4) 4
NC0007
- The number of C-atoms in second member of an ester is/are :
 (1) 2 (2) 3 (3) 4 (4) 5
NC0008
- Which of the following is an example of symmetrical or simple ether :
 (1) $\text{CH}_3-\text{C}(=\text{O})-\text{CH}_3$
 (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) $\text{CH}_3-\text{CH}(\text{CH}_3)-\text{O}-\text{CH}(\text{CH}_3)-\text{CH}_3$
NC0009
- The number of hetero atoms present in the following compound is/are :

 (1) 2 (2) 3 (3) 1 (4) 4
NC0010
- Which of the following compound has sp -hybridised carbon atom :-
 (1) CH_3COOH
 (2) CH_3COCH_3
 (3) $\text{CH}_3\text{CH}_2\text{CN}$
 (4) $\text{CH}_2=\text{CH}-\text{CH}=\text{CH}_2$
NC0012
- In compound $\text{HC}\equiv\text{C}-\text{CH}_2-\text{CH}=\text{CH}-\text{CH}_3$, the C_2-C_3 bond is the type of :-
 (1) $\text{sp}-\text{sp}^2$ (2) sp^3-sp^3
 (3) $\text{sp}-\text{sp}^3$ (4) sp^2-sp^2
NC0013

13. 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

NC0015

14. Which of the following homologous series has incorrect general formula :-

- (1) Alkyne C_nH_{2n-2}
- (2) Alkanol $C_nH_{2n+2}O$
- (3) Alkanal $C_nH_{2n+1}O$
- (4) Carboxylic acid $C_nH_{2n}O_2$

NC0016

15. Minimum number of carbon atoms present in a carboxylic acid anhydride.

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

NC0126

16. Which of the following has general formula C_nH_{2n}

- (1) Only Alkyne
- (2) Only Alkane
- (3) Aromatic hydrocarbon
- (4) Alkene & cycloalkane

NC0019

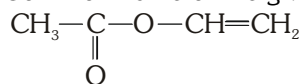
COMMON AND DERIVED NAME

17. Which of the following are tertiary radicals :-

- (a) $\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_3-\text{C}- \\ | \\ \text{CH}_3 \end{array}$
 - (b) $\begin{array}{c} \text{CH}_3-\text{CH}- \\ | \\ \text{CH}_3 \end{array}$
 - (c) $\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_3-\text{C}-\text{C}_2\text{H}_5 \\ | \end{array}$
 - (d) $\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_3-\text{C}-\text{CH}_2- \\ | \\ \text{CH}_3 \end{array}$
- (1) a and b
 - (2) b and c
 - (3) a and c
 - (4) b and d

NC0021

18. Common name of the given compound is :-



- (1) vinyl acetate
- (2) acryl acetate
- (3) methyl acrylate
- (4) Vinyl ethanoate

NC0022

19. 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

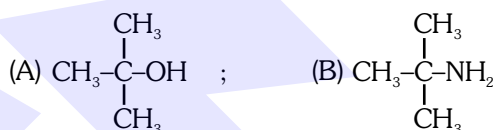
NC0023

20. Which of the following are secondary radicals :-

- (a) $\text{CH}_3-\text{CH}-\text{C}_2\text{H}_5$
 - (b) $\text{CH}_2=\text{C}-\text{CH}_3$
 - (c) $\text{CH}_2=\text{CH}-$
 - (d) $(\text{CH}_3)_2\text{CH}-$
- (1) a, b, c
 - (2) a, d, c
 - (3) b, c, d
 - (4) a, b, d

NC0024

21. 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

NC0025

22. Which of the following is not a correct match

- (1) $\begin{array}{c} \text{CH}_3 \\ | \\ \text{H}_3\text{C}-\text{C}-\text{CH}_2- \\ | \\ \text{CH}_3 \end{array} \Rightarrow \text{Neopentyl}$
- (2) $\begin{array}{c} \text{CH}_3 \\ | \\ \text{H}_3\text{C}-\text{C}- \\ | \\ \text{CH}_3 \end{array} \Rightarrow \text{Neobutyl}$
- (3) $\text{HC}\equiv\text{C}-\text{CH}_2- \Rightarrow \text{Propargyl}$
- (4) $\text{CH}_2=\text{CH}-\text{CH}_2- \Rightarrow \text{Allyl}$

NC0026

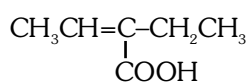
IUPAC NAME

23. The IUPAC name for isobutyl chloride is :-

- (1) 2-Methyl-2-chlorobutane
- (2) 2-Chloro-2-methylbutane
- (3) 1-Chloro-2-methylpropane
- (4) 2-Methyl-3-chloropropane

NC0027

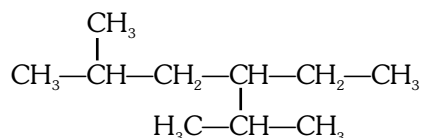
24. The IUPAC name of given compound is :-



- (1) 3-Carboxy-2-pentene
- (2) 2-Ethylidenebutanoic acid
- (3) 2-Ethyl-2-buten-4-oic acid
- (4) 3-Ethyl-2-buten-4-oic acid

NC0028

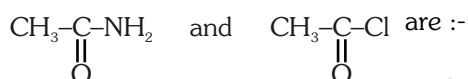
25. The IUPAC name for the given structure is :-



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

NC0029

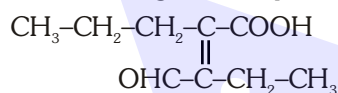
26. The IUPAC name for



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

NC0030

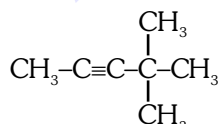
27. The number of carbon atoms in the principle chain of the given compound are :-



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

NC0031

28. The IUPAC name of given compound is :-



- (1) Methyltertiarybutyl acetylene
- (2) t-Butylpropyne
- (3) 4,4-Dimethyl-2-pentyne
- (4) 1,3,3,3-Tetramethylethyne

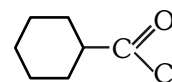
NC0032

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

- (1) Methylethylamine
- (2) 1-methylaminoethane
- (3) N-methylethanamine
- (4) N-ethylmethanamine

NC0034

30. The IUPAC name for the compound is :-



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

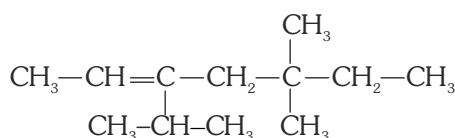
NC0035

31. The IUPAC name of $\text{HC}\equiv\text{C}-\text{C}(\text{CH}_3)=\text{CH}-\text{CH}_3$ is

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

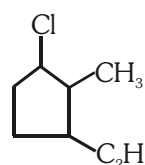
NC0036

32. The IUPAC name of the structure is :-



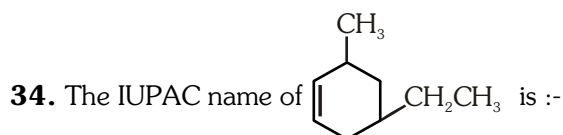
- (1) 3-Isopropyl-5,5-dimethylhept-2-ene
- (2) 5-Ethyl-3,3,6-trimethylhept-2-ene
- (3) 3,3-Dimethyl-5-isopropylhept-5-ene
- (4) 3-Ethyl-2,5,5-trimethylhept-2-ene

NC0037

33.  has the IUPAC name :-

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

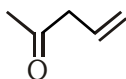
NC0038



- (1) 1-Methyl-5-ethylcyclohex-2-ene
- (2) 5-Ethyl-3-methylcyclohex-1-ene
- (3) 4-Ethyl-6-methylcyclohex-1-ene
- (4) 1-Ethyl-5-methylcyclohex-3-ene

NC0039

35. The IUPAC name for the compound is :-



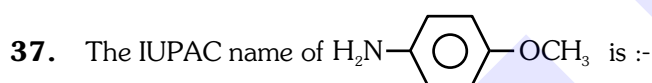
- (1) 2-Acetyl prop-1-ene
- (2) Pent-1-en-4-one
- (3) Pent-4-en-2-one
- (4) Formyl propene

NC0041

36. 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

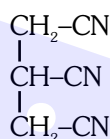
NC0042



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

NC0043

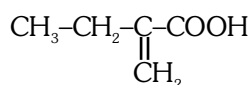
38. The IUPAC name of the given compound is :-



- (1) 1,2,3-Tricarbonitrilepropane
- (2) Propane-1,1,1-tricarbylamine
- (3) Propane-1,2,3-tricarbonitrile
- (4) 3-Cyano pentane dicyanide

NC0045


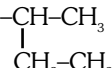
39. Number of carbon atoms in the principle carbon chain in the given compound are :-



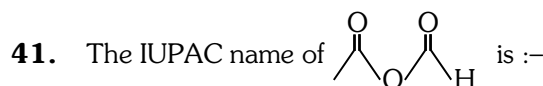
- (1) 4
- (2) 3
- (3) 2
- (4) 5

NC0046

40. 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 propanoate
- (3)  $\text{CH}_3\text{-CH-CH=CH-CH}_3$ 2-Methyl pent-3-ene
- (4)  $\text{CH}_3\text{-CH}_2\text{-O-CH-CH}_3$ 2-Ethoxy butane

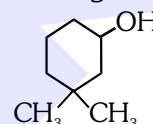
NC0047



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

NC0049

42. The IUPAC name of given compound is :-



- (1) 3,3-Dimethyl-1-hydroxycyclohexane
- (2) 1,1-Dimethyl-3-hydroxycyclohexane
- (3) 3,3-Dimethyl-1-cyclohexanol
- (4) 1,1-Dimethyl-3-cyclohexanol

NC0050

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

- (1) 2,2-Dimethylbutane
- (2) 2,3-Dimethylbutane
- (3) 2,4-Dimethylbutane
- (4) 1-Methylpentane

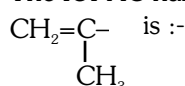
NC0051

44. 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

NC0052

45. The IUPAC name of the following group



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

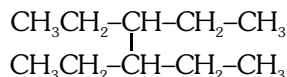
NC0053

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

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

NC0054

47. The IUPAC name of the following compound



- (1) 3, 4 - Dimethyloctane
- (2) 3-sec pentylpentane
- (3) 3, 4 - Diethylhexane
- (4) 3, 4 - Dimethylhexane

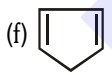
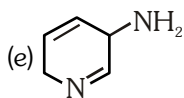
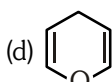
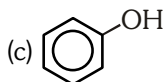
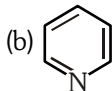
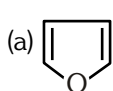
NC0055

48. Correct IUPAC name is :-

- (1) 3-Methyl-2-ethylpentane
- (2) 2-Ethyl-3-methylpentane
- (3) 3-Ethyl-2-methylpentane
- (4) 2-Ethyl-2-methylpentane

NC0056

49. Which is hetero alicyclic ?

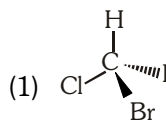


Correct choice is :

- (1) a, b, d and e
- (2) c and e
- (3) d and e
- (4) only f

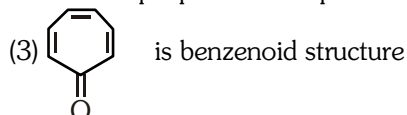
NC0112

50. Incorrect statement is :



Iodine atom is away from observer and -Cl is on the plane of paper

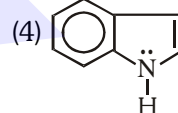
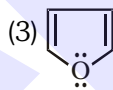
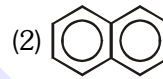
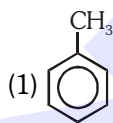
- (2) Alicyclic are those compounds which have similar properties of aliphatic compounds



- (4) Naphthalene is example of fused benzene ring

NC0113

51. Which of the following is non-benzenoids ?



NC0114

EXERCISE-I (Conceptual Questions)

ANSWER KEY

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

EXERCISE-II (Previous Year Questions)

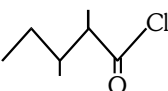
AIPMT/NEET

AIPMT-2006

1. The general molecular formula, which represents the homologous series of alkanols is

- (1) $C_nH_{2n}O_2$ (2) $C_nH_{2n}O$
(3) $C_nH_{2n+1}O$ (4) $C_nH_{2n+2}O$

NC0057

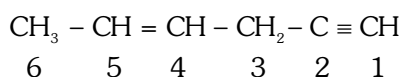
2. The IUPAC name of  is :-

- (1) 3,4-Dimethylpentanoyl chloride
(2) 1-Chloro-1-oxo-2,3-dimethylpentane
(3) 2-Ethyl-3-methylbutanoyl chloride
(4) 2,3-Dimethylpentanoyl chloride

NC0058

AIPMT-2008

3. In the hydrocarbon



The state of hybridization of carbons 1, 3 and 5 are in the following sequence :-

- (1) sp , sp^2 , sp^3
(2) sp^3 , sp^2 , sp
(3) sp^2 , sp , sp^3
(4) sp , sp^3 , sp^2

NC0059

AIPMT-2009

4. The IUPAC name of the compound having the formula $\text{CH} \equiv \text{C} - \text{CH} = \text{CH}_2$ is :-

- (1) 1-buten-3-yne
(2) 3-buten-1-yne
(3) 1-butyne-3-ene
(4) but-1-yn-3-ene

NC0060

AIPMT Mains-2010

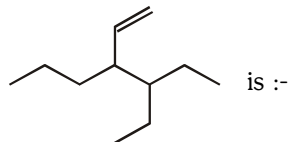
5. The IUPAC name of the compound $\text{CH}_3\text{CH}=\text{CHC}\equiv\text{CH}$ is :-

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

NC0061

AIPMT Pre.-2011

6. The correct IUPAC name of the compound

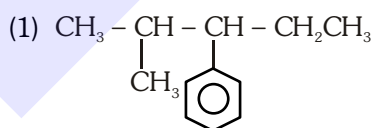


- (1) 4-Ethyl-3-propylhex-1-ene
(2) 3-Ethyl-4-ethenylheptane
(3) 3-Ethyl-4-propylhex-5-ene
(4) 3-(1-ethyl propyl)hex-1-ene

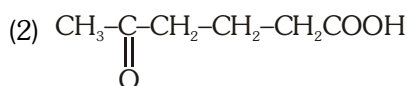
NC0062

AIPMT Pre.-2012

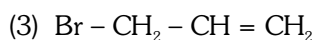
7. Which nomenclature is not according to IUPAC system?



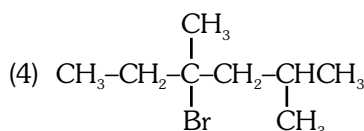
2-Methyl-3-phenylpentane



5-Oxohexanoic acid



1-Bromo-prop-2-ene

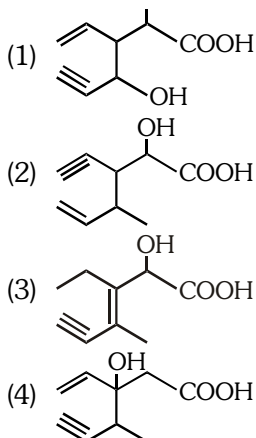


4-Bromo-2,4-dimethylhexane

NC0063

NEET UG-2013

- 8.** Structure of the compound whose IUPAC name is 3-Ethyl-2-hydroxy-4-methylhex-3-en-5-ynoic acid is :-



NC0064

AIPMT-2014

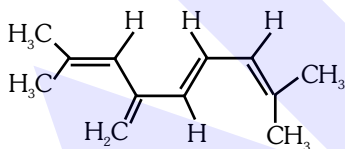
9. Which of the following organic compounds has same hybridization as its combustion product CO_2 ?

- (1) Ethane (2) Ethyne
(3) Ethene (4) Ethanol

NC0065

AIPMT-2015

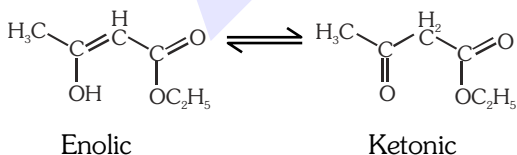
- 10.** The total number of π -bond electrons in the following structure is :-



- (1) 8 (2) 12 (3) 16 (4) 4

NC0066

- 11.** The enolic form of ethyl acetoacetate as below has:-



- (1) 16 sigma bonds and 1 pi - bond
- (2) 9 sigma bonds and 2 pi - bonds
- (3) 9 sigma bonds and 1 pi - bond
- (4) 18 sigma bonds and 2 pi - bonds

NC0067

NEET-I 2016

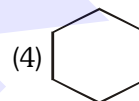
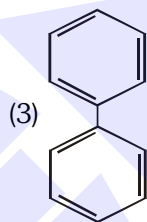
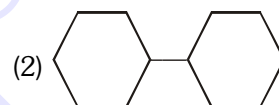
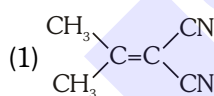
- 12.** The pair of electron in the given carbanion, $\text{CH}_3\text{C} \equiv \text{C}^\ominus$, is present in which of the following orbitals ?

- (1) 2p (2) sp^3 (3) sp^2 (4) sp

NC0068

NEET-II 2016

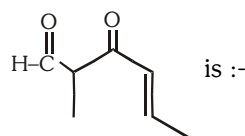
- 13.** In which of the following molecules, all atoms are coplanar ? 



NC0069

NEET(UG) 2017

- 14.** The IUPAC name of the compound



- (1) 5-formylhex-2-en-3-one
- (2) 5-methyl-4-oxohex-2-en-5-al
- (3) 3-keto-2-methylhex-5-enal
- (4) 3-keto-2-methylhex-4-enal

NC0071

NEET(UG) 2018

- 15.** Which of the following molecules represents the order of hybridisation sp^2 , sp^2 , sp , sp from left to right atoms ?

- (1) $\text{HC} \equiv \text{C} - \text{C} \equiv \text{CH}$
- (2) $\text{CH}_2 = \text{CH} - \text{C} \equiv \text{CH}$
- (3) $\text{CH}_2 = \text{CH} - \text{CH} = \text{CH}_2$
- (4) $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH}_3$

NC0073

NEET(UG) 2019

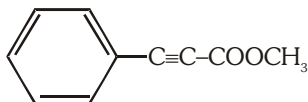
16. The number of sigma (σ) and pi (π) bonds in pent-2-en-4-yne is :-

- (1) 10 σ bonds and 3 π bonds
- (2) 8 σ bonds and 5 π bonds
- (3) 11 σ bonds and 2 π bonds
- (4) 13 σ bonds and no π bond

NC0115

NEET(UG) 2020 (COVID-19)

17. How many (i) sp^2 hybridised carbon atoms and (ii) π bonds are present in the following compound?

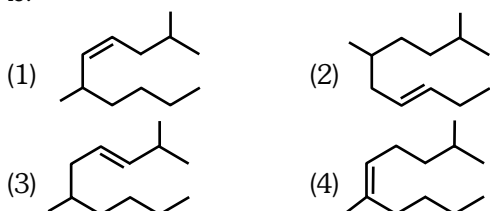


- (1) 7, 5
- (2) 8, 6
- (3) 7, 6
- (4) 8, 5

NC0127

NEET(UG) 2021

18. The correct structure of 2,6-Dimethyl-dec-4-ene is:



NC0128

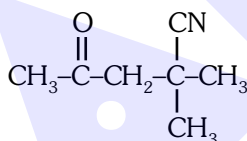
NEET(UG) 2021(Paper-2)

19. The Cl-C-Cl bond angle in 1, 1, 2, 2-tetrachloroethene and tetrachloromethane respectively are

- (1) 120° and 109.5°
- (2) 90° and 109.5°
- (3) 109.5° and 90°
- (4) 109.5° and 120°

NC0129

20. The IUPAC name of the compound

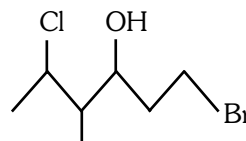


- (1) 2-Cyano-2-methyl-4-oxopentane
- (2) 4-Cyano-4-methyl-2-pentanone
- (3) 4-Cyano-4-methyl-2-oxopentane
- (4) 2, 2-Dimethyl-4-oxopentanenitrile

NC0130

NEET(UG) 2022

21. The correct IUPAC name of the following compound is :

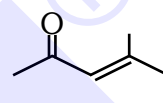


- (1) 6-bromo-2-chloro-4-methylhexan-4-ol
- (2) 1-bromo-4-methyl-5-chlorohexan-3-ol
- (3) 6-bromo-4-methyl-2-chlorohexan-4-ol
- (4) 1-bromo-5-chloro-4-methylhexan-3-ol

NC0131

NEET(UG) 2022 (OVERSEAS)

22. The correct IUPAC name of the following compound is :-

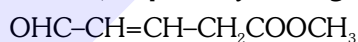


- (1) 4-methylhex-3-en-2-one
- (2) 4-ethylpent-3-en-2-one
- (3) 3-methylhex-3-en-4-one
- (4) 2-ethylhex-3-en-4-one

NC0132

Re-NEET(UG) 2022

23. What is the hybridization shown by C_1 and C_2 carbons, respectively in the given compound ?



- (1) sp^2 and sp^3
- (2) sp^2 and sp^2
- (3) sp^3 and sp^2
- (4) sp^3 and sp^3

NC0133

EXERCISE-II (Previous Year Questions)

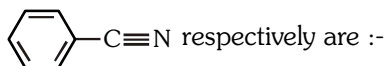
ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	4	4	4	1	1	1	3	3	2	1	4	4	3	4	2
Que.	16	17	18	19	20	21	22	23							
Ans.	1	3	1	1	4	4	1	1							

EXERCISE-III (Analytical Questions)

Master Your Understanding

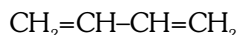
1. The number of π bonds and σ bonds in the structure



- (1) 8, 5 (2) 8, 6
(3) 3, 8 (4) 5, 13

NC0078

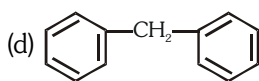
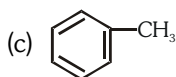
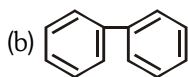
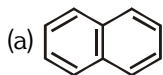
2. The geometry of the compound is :-



- (1) Tetrahedral (2) Linear
(3) Planar (4) Pyramidal

NC0079

3. Which of the following have only 2° H-atom :

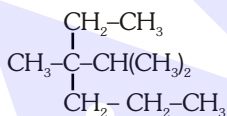


Correct code is :

- (1) a and b (2) a, b and d
(3) a, c and d (4) a, b, c and d

NC0080

4. The IUPAC name of the given structure is :-



- (1) 3-Methyl-3-isopropylhexane
(2) 3-Isopropyl-3-methylhexane
(3) 3-Ethyl-2,3-dimethylhexane
(4) 2,3-Dimethyl-3-ethylhexane

NC0081

5. The IUPAC name from the incorrect name 4-Amino-3-hydroxy-2-butene is :-

- (1) 1-Amino-2-hydroxy-2-butene
(2) 4-Amino-2-buten-3-ol
(3) 1-Amino-2-buten-2-ol
(4) 1-Amino-2-butenol

NC0084

6. The correct IUPAC name of 2-chloro-3-butanol is :-

- (1) 3-Chloro-2-hydroxy butane
(2) 3-Chloro-2-butanol
(3) 3-Hydroxy-2-chloro butane
(4) 2-Chloro-3-hydroxy butane

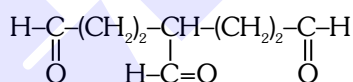
NC0085

7. The IUPAC name for is :-

- (1) 2-Hydroxycyclopentanal
(2) 2-Formyl-1-hydroxycyclopentane
(3) 2-Hydroxycyclopentanecarbaldehyde
(4) Cyclopentane-2-ol-1-al

NC0086

8. The IUPAC name of the compound is :-



- (1) 1,4,7-Triheptanal
(2) 1,3,5-Triformylpentane
(3) 3-Formylheptanedial
(4) 1,3,5-Pentanetricarbaldehyde

NC0087

9. $\text{CH}_3-\text{O}-\text{C}(=\text{O})-\text{CH}_2-\text{COOH}$

The IUPAC name of the above compound is :-

- (1) 2-Acetoxyethanoic acid
(2) 2-Methoxycarbonylethanoic acid
(3) 3-Methoxyformylethanoic acid
(4) 2-Methoxyformylacetic acid

NC0088

10. The IUPAC name of $\text{Cl}-\text{C}(=\text{O})-\text{OC}_2\text{H}_5$ is :-

- (1) Ethoxyformylchloride
(2) Ethoxymethanoyl chloride
(3) Ethyl chloromethanoate
(4) Ethoxycarbonylchloride

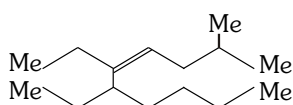
NC0089

11. The IUPAC name of $\text{CH}_3\text{CH}_2\text{NHCHO}$ is :

- (1) N-formylethanamine
- (2) Ethylaminomethanal
- (3) N-ethylmethanamide
- (4) N-ethylmethanol

NC0091

12. The IUPAC name of the structure is :-



- (1) 2,4,5-Triethyl-3-nonene
- (2) 5,6-Diethyl-2-methyl-4-decene
- (3) 2,4,5-Triethyl-3-octene
- (4) 3-Ethyl-5-methyl-3-heptene

NC0092

13. has the IUPAC name :

- (1) Ethyl-2-ketocyclopentanecarboxylate
- (2) 2-Cyclopentanone-1-carbethoxy
- (3) 2-Ethylcarbonatecyclopentanone
- (4) 1-Keto-2-carbethoxycyclopentanone

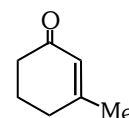
NC0093

14. The IUPAC name of is :-

- (1) 3,4-Dihydroxybenzoic acid
- (2) 2,3-Dihydroxybenzoic acid
- (3) 4-Carboxy-2-hydroxyphenol
- (4) 4-Carboxybenzene-1,2-diol

NC0096

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



- (1) 3-Methyl-2-cyclohexenone
- (2) 2-Methyl-3-cyclohexenone
- (3) 1-Oxo-3-methylcyclohexene
- (4) 2-Oxo-6-methylcyclohexene

NC0097

16. The IUPAC name of is :-

- (1) 2,3-Dimethylhexane
- (2) 2-Ethyl-4-methylpentane
- (3) 3-Ethyl-2-methylpentane
- (4) 2,4-Dimethylhexane

NC0098

17. IUPAC name of is :-

- (1) 6-Oxo-4-formylcyclohexanecarboxylic acid
- (2) 4-Formyl-2-oxo cyclohexanecarboxylic acid
- (3) 4-Formyl-2-oxo cyclohexanoic acid
- (4) 1-Carboxy-4-formyl-2-oxo cyclohexane

NC0099

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

- (1) $\text{CH}_3\text{CH}_2\text{CH}_2\text{COOCH}_2\text{CH}_3 \rightarrow$ Ethylbutanoate
- (2) $\text{CH}_3-\underset{\text{CH}_3}{\text{CH}}-\text{CH}_2-\text{CHO} \rightarrow$ 3-Methylbutanal
- (3) $\text{CH}_3-\underset{\text{OH}}{\text{CH}}-\underset{\text{CH}_3}{\text{CH}}-\text{CH}_3 \rightarrow$ 2-Methyl-3-butanol
- (4) $\text{CH}_3-\underset{\text{CH}_3}{\text{CH}}-\overset{\text{O}}{\underset{\text{||}}{\text{C}}}-\text{CH}_2-\text{CH}_3 \rightarrow$ 2-Methyl-3-Pentanone

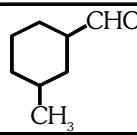
NC0101

19. Find correct IUPAC name of tetra-tert-butylmethane

- (1) 3,3-di butyl-2,2,4,4-tetramethylpentane
- (2) 3,3-di tert-butyl-2,2,3,3-tetramethylpentane
- (3) 3,3-di tert-butyl-2,2,4,4-tetramethylpentane
- (4) 3,3-tert butyl-2,2,4,4-tetramethylpentane

NC0116

20. Match the following structure given in column-I with their common names given in column-II and choose the correct option from the codes given below.

Column-I		Column-II	
A	$\text{CH}_3-\underset{\text{Br}}{\text{CH}}-\text{CH}_2-\overset{\text{O}}{\underset{\text{ }}{\text{C}}}-\text{H}$	X	Isobutyraldehyde
B	$(\text{CH}_3)_2\text{CHCHO}$	Y	α -Methoxy propionaldehyde
C		Z	β -Bromobutyraldehyde
D	$\text{CH}_3\text{CH}(\text{OCH}_3)\text{CHO}$	W	γ -Methyl cyclohexane-carbaldehyde

	A	B	C	D
(1)	X	Y	Z	W
(2)	Z	X	Y	W
(3)	Z	Y	X	W
(4)	Z	X	W	Y

NC0117

EXERCISE-III (Analytical Questions)

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	4	3	2	3	3	2	3	4	2	3	3	2	1	1	1
Que.	16	17	18	19	20										
Ans.	4	2	3	3	4										