OBJECTIVE QUESTIONS
LEVEL-II

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

LEVEL - II

1)

List-I (Compounds)	List-II (Molecular formula)
A. Alcohols	1) $C_nH_{2n}O$
B. Aldehydes	2) $C_nH_{2n}O_2$
C. Carboxylic acids	3) $C_nH_{2n+2}O$
D. Alkynes	4) C_nH_{2n}
	5) C_nH_{2n-2}

1) A-3, B-1, C-2, D-5

2) A-2, B-4, C-3, D-5

3) A-1, B-2, C-3, D-5

4) A-5, B-2, C-3, D-1

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

2) Match the following

List - I	List - II
A) –OH	1) Oic acid
B) –COOH	2) al
C) –CHO	3) One
D) –CO-	4) ol
E) $–NH_2$	

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

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

3) A-2, B-3, D-1, E-4

4) A-3, C-1, D-2, E-4

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

3) The correct priority order of principal functional group

a) acid **b) aldehydes**

c) nitriles **d) alcohols**

1) a > b > c > d **2) a > c > d > b**

3) a > c > b > d **4) a > d > b > a**

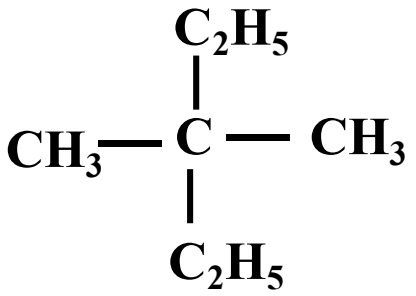
ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

4) Match the following

List – I (Substituent)	List – II (Prefix)
A – OH	1) Cyano
B – CHO	2) Hydroxy
C – CO –	3) Carboxylic
D – CN	4) formly
	5) Oxo (or) keto

1) A-2, B-4, C-1, D-5
2) A-2, B-4, C-5, D-1 ✓
3) A-2, B-4, C-5, D-1
4) A-2, B-4, C-1, D-3

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

5)  IUPAC name is

1) 2, 2-Diethyl propane

2) 3, 3-Dimethyl pentane

3) 3-ethyl-3-methyl butane

4) 3-ethyl-2-methyl butane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

6) IUPAC name of $(CH_3)_2CH\text{-}CH(CH_3)_2$ is

1) 1, 1, 2, 3 – Tetra ethyl ethane

2) 1, 2, – Di isopropyl ethane

3) 2, 3 – Dimethyl butane ✓

4) 2, 3, 3 – Trimethyl butane

7) Which of the following represents 2, 2, 3 – Trimethylhexane?

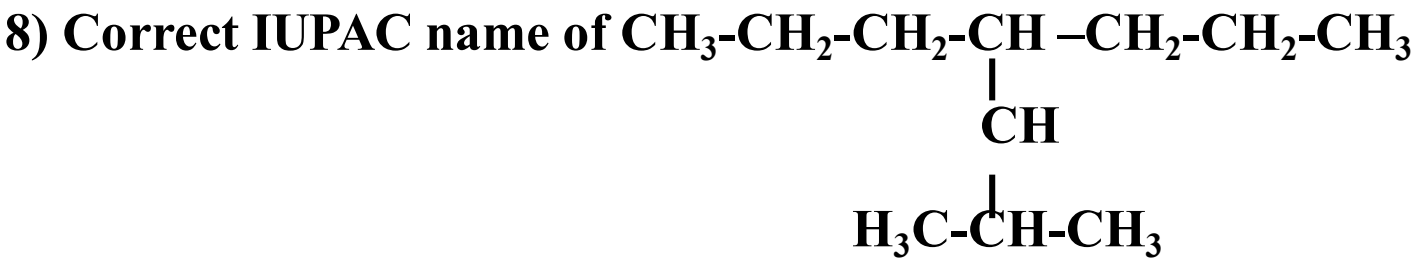
1) CH_3-$C(CH_3)_2$-CH_2-CH_2-$CH(CH_3)_2$

2) CH_3-$CH(CH_3)$-CH_2-$CH(CH_3)$-CH_2-CH_3

3) ✓ CH_3-$C(CH_3)_2$-$CH(CH_3)$-CH_2-CH_2-CH_3

4) CH_3-$C(CH_3)_2$-CH_2-$C(CH_3)_2$-CH_3

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

8) Correct IUPAC name of 

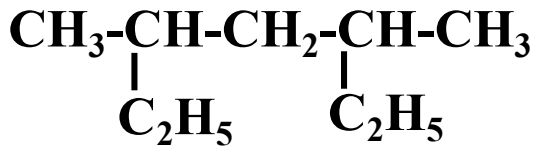
1) 4 – (2- Methyl propyl) heptane

2) 4 – isobutyl heptane

3) 2 – Methyl -4 – propyl heptane

4) 2- Methyl decane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

9)  IUPAC name is

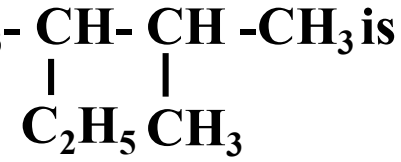
1) 2, 4 – diethyl pentane

2) 3, 5 – dimethyl heptane

3) 3 – methyl 5 – ethyl hexane

4) 5 – ethyl – 3 – methyl hexane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

10) The IUPAC name of  is

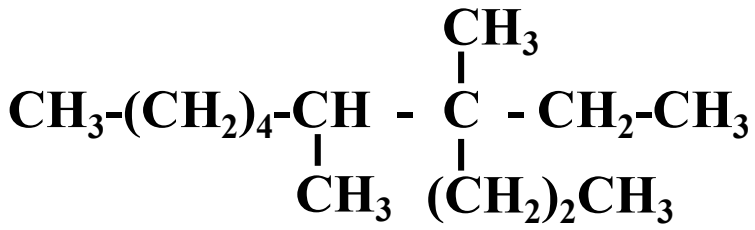
1) 2-ethyl- 3- methyl butane

2) 2, 3 – dimethyl pentane

3) 2- methyl-3-ethylbutane

4) All the above

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

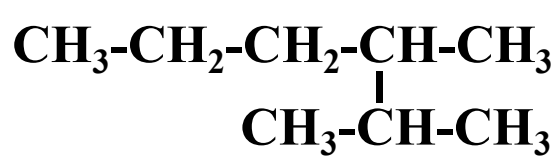
11) IUPAC name of 

1) 3-Ethyl-3, 4-dimethylhexane

2) 4-Ethyl-4, 5-dimethyldecane

3) 3-propyl-3, 4-dimethylnonane

4) All the above

12) IUPAC name of 

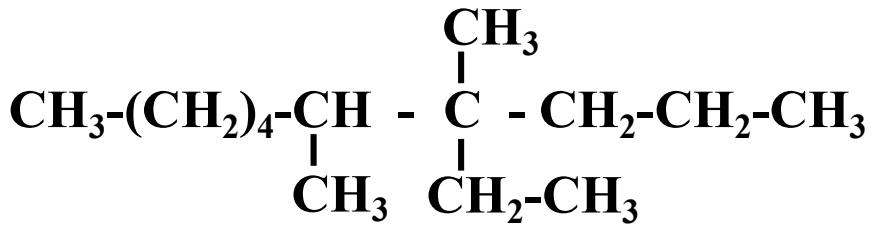
1) 2, 3 – dimethyl hexane

2) 2-methyl – 3 – propyl butane

3) 2-isopropyl pentane

4) None of these

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

13) IUPAC name of 

1) 3, 4-dimethyl-3-propylnonane

2) 4-ethyl-4, 5 – dimethyl decane

3) 6, 7 – dimethyl – 7 ethyl nonane

4) 6, 7 – dimethyl 1 – 7 – ethyl decane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

14) The structural formula of 3 – ethyl – 2 – methyl hexane is…

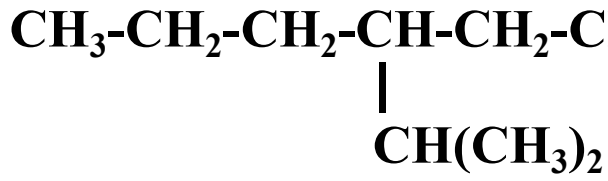
1) $CH_3 - CH(CH_3)\text{-}CH(C_2H_5)\text{-}CH_2CH_2\text{-}CH_3$

2) $CH_3\text{-}CH_2CH(C_2H_5)\text{-}CH(CH_3)\text{-}CH_2\text{-}CH_3$

3) Either (1) or (2)

4) None of these

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

15) The systematic name of the organic compound having the structure  is

1) 4-Isopropyl hexane

2) 2-Methyl – 3 - propylhexane

3) Isodecane

4) 4-(1-Methylethyl)heptane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

16) IUPAC name of $CH_2=CH-CH(CH_3)_2$ is

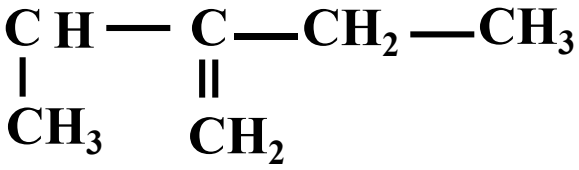
1) 1, 1 – Dimethyl – 2 - propane

2) 3 – Methyl – 1- butene

3) 2-vinyl propane

4) 1-Isopropyl ethylene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

17) IUPAC name of  is ....

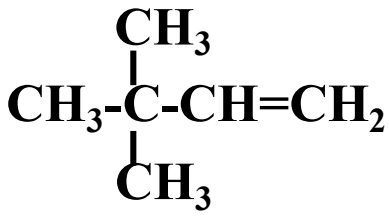
✔ 1) 2-ethyl-3-methyl but-1-ene

2) 2-Ispropyl but-1-ene

3) 2-Methyl-3-ethyl-3-butene

4) 2-(1-Methyl ethyl) but -1-ene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

18) IUPAC name of  is

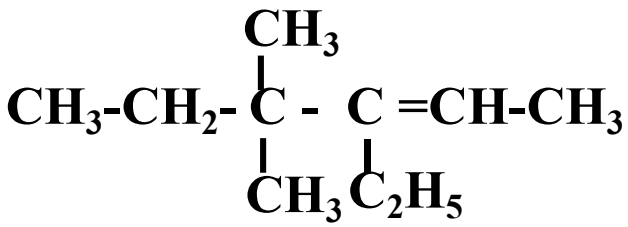
1) 3, 3, 3 – Trimethyl – 1- propene

2) 1, 1, 1 – Trimethyl – 3 - Propene

3) 3, 3 – Dimethyl – 1- butene

4) 1, 1 – Dimethyl – 3- butene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

19)  The IUPAC name is

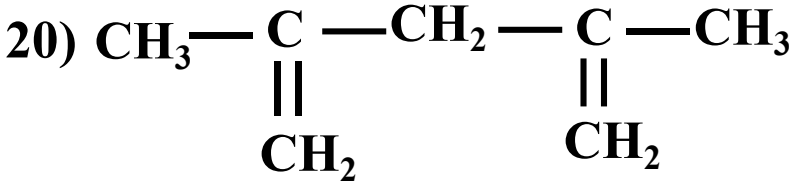
1) 3-ethyl 4, 4-dimethyl – 2- hexene

2) 4-ethyl-3, 3-dimethyl-2-hexene

3) 4-ethyl-3, 3-dimethyl – 4 -hexene

4) All of those

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

20)  IUPAC name is

1) 2, 4-pentadiene

2) 2, 4-dimethyl-1,4-pentadiene

3) 2, 4 - butadiene

4) 2, 3 - butadiene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

21) The IUPAC name of $H_3C\text{-}C{\equiv}C\text{-}CH(CH_3)_2$ is

1) 4-Methyl-2-pentyne

2) 4, 4, - Dimethyl – 2 – butyne

3) Isopropylmethyl acetylene

4) 2-Methyl-4-pentyne

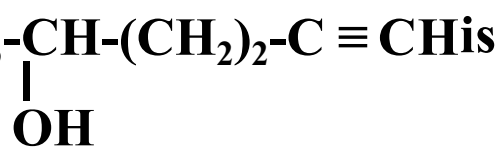
22) IUPAC name of $CH \equiv C - CH = CH_2$ is

1) But – 3 –en – 1 -yne

2) But – 1 – en -3 - yne ✓

3) But – 1 – yn – 3 - ene

4) But – 3 –yn – 1 -ene

23) IUPAC name of compound 

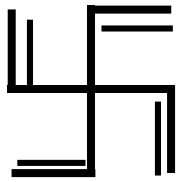
1) 2-Hydroxy 5 - hexyne

2) 1-yne-2-hexanol

3) Hex-5-yne-2-ol

4) Hex-5-yn-2-ol ✓

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

24) IUPAC name of the compound  **is**

1) Nomatetraene

2) Diene pentadiene

3) 3, 3-Diethenyl-1,4-Pentadiene

4) None of these

25) IUPAC name of the tertiary butyl alcohol is

1) butanol-1

2) 2-methyl propanol - 1

3) 2-methyl propanol-2 ✓

4) butanol-2

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

26) IUPAC name of CH_2OH-CH_2OH is

1) 1, 2-dihydroxy ethane

2) Ethylene glyco

3) Ethane – 1, 2-diol ✓

4) Ethane -1,2 -dial

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

27) The IUPAC name of $(C_2H_5)_2CHCHCH_2OH$ is

1) 3-methyl butanol-1

2) 2-methyl pentanol-1

3) 3-ethyl pentanol-1 ✓

4) 2-ethyl butanol -1

28) IUPAC name of the compound $C_2H_5 - \underset{\underset{CH_2}{\|}}{C}- CH_2OH$

1) 2- Ethyl prop-2-en-l-ol

2) 2- Hydroxymethyl butan– l- ol

3) 2- Methylene butan – l- ol

4) 2- Ethyl – 3 –hydroxyprop-1-ene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

29) IUPAC name of CH_3-CH=CH-CH_2OH

1) 1-ene-1-butanol

2) But -2-en-1-ol ✓

3) 2-Buten – 2- ol

4) All the above

30) The IUPAC name of  is

1) 4-hydroxy-2-methyl pentanal

2) 2-hydroxy-4-methyl pentanal

3) 4-hydroxy-2-methyl pentanol

4) 2-hydroxy-4-methyl pentanol

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

31) The IUPAC name of the compound CH_3-CH(C_2H_5)-CH_2-CH(OH)-CH_3

1) 4-Ethyl pentanol-2

2) 4-Methyl hexanol-2 ✓

3) 2-Ethyl pentanol-2

4) 3-Methylhexanol-2

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

32) IUPAC name of $(C_2H_5)_2CH\text{-}CH_2OH$ is

1) 2-Ethyl butanol - 1

2) 2-Methyl pentanol - 1

3) 2 – Ethyl pentanol - 1

4) 3 – Ethyl butanol - 1

33) The correct IUPAC name of the compound CH_2=CH-CH_2Cl

1) Allyl chloride

2) 1-chloro-3-propene

3) 1-chloro-2-propene

4) 3-chloro-1-propene ✓

34) IUPAC name of $(CH_3)_2CH\text{-}CH_2Br$

1) 1-Bromo-2-methyl propane

2) 2-methyl-3-Bromo propane

3) Iso propyl Bromide

4) 3^0 butyl bromide

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

35) IUPAC name of CCl_4 is….

1) Pyrene

2) Carbon tetrachloride

3) Tetrachlorocarbon ✔

4) Tetrachloromethane

36) Structure of hexa fluoro ethane is

1) $FCH_2\text{-}CH_2\text{-}CH_2\text{-}CH_2\text{-}CH_2\text{-}CH_3$

2) $F_3C\text{-}CF_3$

3) $CH_3\text{-}CH_2\text{-}CH_2\text{-}CHF\text{-}CF_2\text{-}CF_3$

4) $CH_3\text{-}CF_3$

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

37) The IUPAC name of t-butyl alcohol is

1) 2-methyl propan – 2 - ol

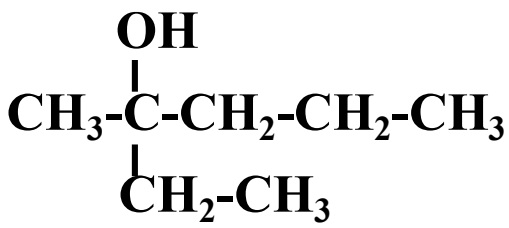
2) 2,2-dimethyl propane – 2 - ol

3) 2-methyl butane – 2-ol

4) None of these

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

38) IUPAC name of



1) 3-methyl-3hexanol

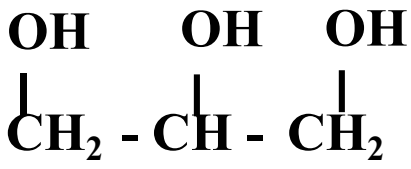
2) 2-ethyl-2-pentanol

3) 2-ethyl-2 hydroxy pentane

4) Any of these

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

39) Give the IUPAC name of



1) Glycerol

2) Propane triol

3) Propane – 1,2,3-triol

4) 1, 2, 3, - tripropanol

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

40) The IUPAC Name of isobutanol is

1) 2-methyl propanol

2) 2-methyl-2-propanol

3) 2-butanol

✓ 4) 2-methyl-1-propanol

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

41)  has the IUPAC name

1)3-hydroxy butanol

2) butane-1,3-diol

3) Butane glycol

4) 1,3- dihydroxy butane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

42) IUPAC name of CH_3-O-CH(CH_3)-CH_3 is...

1) methyl propyl ether

2) methyl isopropyl ether

3) 2-methoxy propane ✓

4) All the above

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

43) IUPAC name of CH_3-O-$CH_2CH_2CH_2CH_3$ is

1) 1-butoxy methane

2) Mehtyl carbyl ether

3) Pentanone

4) 1-methoxybutane ✓

44) The IUPAC name of 

1) 2-pentanone

2) Pentanone-2

3) Pentan-2-one

4) All are correct

45) The IUPAC name of 

is

1) 1-Hydroxy-4-methyl-3-pentanone

2) 2-Methyl-5-hydroxy-3-pentanone

3) 4-Methyl-3-oxo-1-pentanol

4) Hexanol-1-one-3

46) IUPAC name of $Cl_3C\text{-}CH_2CHO$ is

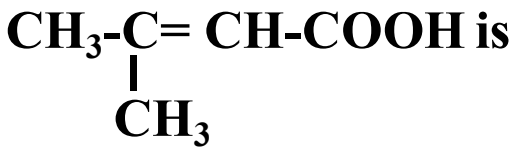
1) 3, 3, 3-Trichloropropanal

2) 1, 1, 1-Trichloropropanal

3) 2, 2, 2-Trichloropropanal

4) Chloral

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

47) The IUPAC name of  is

1) 2-Methyl-2-butenoic acid

2) 3-Methyl-3-butenoic acid

3) 3-Methyl-2-butenoic acid

4) 2-Methyl-3-butenoic acid

48) IUPAC name of HOOC– CH_2-CHO is

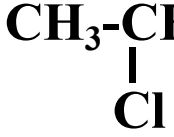
1) 2- Formyl ethanoic acid

2) 2- Carboxyethanal

3) Prop-3-al-l-oic acid

4) Prop-l-al-3-oic acid

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

49) The IUPAC name of  **is**

1) 2-Chloro propinoic acid

2) Chloro propanoic acid

3) 2-chloro propanoic acid

4) Propanoic acid chloride

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

50) IUPAC name of CH_3-CHCl-CH_2-CHO is

1) 2-chloro – 4- butanol

2) 3-chloro butanol

3) 2-chloro-4- butanal

4) 3-chloro butanal ✓

51) The correct IUPAC name of H - C – CHO is

1) Formyl methanal

2) 1, 2-Ethanedione

3) 2-Oxoethanal

✔ 4) Ethanedial

52) Structure of prop-2-ynal

1) CH_3-C≡C-OH

2) CH≡C-CH_2-OH

3) ✓ CH≡C-CHO

4) CH_2=CH-CHO

53) IUPAC name of $(CH_3)_3C\text{-}CH{=}CH\text{-}CHO$

1) 4, 4, 4-trimethyl but – 2 – en – 1- al

2) 4, 4-dimethyl pent-2-enal ✓

3) 2, 2-dimethyl pent – 3 – en – 4 - al

4) 3-tert, butyl prop-2-en-1-al

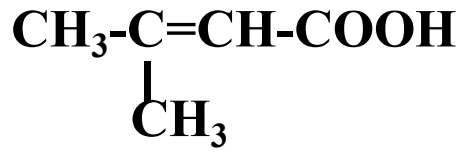
54) CH_3COCH_2CN has the IUPAC name

1) 3-oxo butane nitrile

2) 1-cyano propane

3) 2-oxo propane

4) 1-cynaobutanone-2

55) The IUPAC name of the formula 

1) 2-Mrthyl-2-butenoic acid

2) 3-Methyl-3-butenoic acid

3) 3-Methyl-2-butenoic acid

4) 2-Methyl-3-butenoic acid

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

56) The IUPAC name of $(CH_3)_2CH\text{-}COOH$

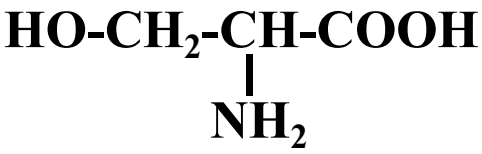
1) 2-Propanoic acid

2) Isobutanoic acid

3) 2-Methylpropanoic acid ✓

4) 2-Methlbutanoic acid

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

57) The IUPAC name of 

1) 3-hydroxy-2-aminobutanoic acid

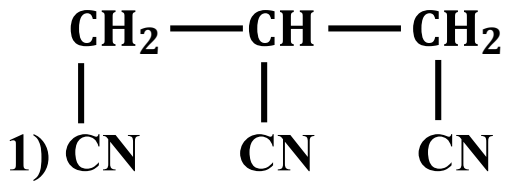
2) 2-amino-3-carboxypropanol

3) 2-amino-3-hydroxy-propanoic acid

4) 2-amino-3-hydroxybutanoic acid

OBJECTIVE QUESTIONS
LEVEL-III

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES



1) 2-Ethyl-4-methylhexane

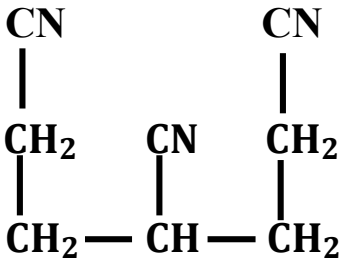
2) 2-Amino-4-methylpentane

3) 3-Ethylhexane

4) Propane-1, 2, 3-tricarbonitrile

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

2) The IUPAC name of the structure given below is



1) 1, 3, 5, - cyanopentane

2) Pentane tricyanide

3) Pentane- 1, 3, 5 – tricarbo nitrile

4) 4 – cyano heptanedicyanide

3) $CH_3 - CH_2 - CO - CH(CN) - COOH$

The IUPAC name of the compound is

1) 3 – Ketonic – 2 –cyano pentanoic acid

2) cyanoketohexanoic acid

3) 3 – oxo – 2 – cyano pentanoic acid

4) 2 – cyano – 3 – oxo pentanoic acid ✓

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

4) IUPAC name of succinic acid is

1) Butane – 1, 4 – dioic acid

2) Oxalic acid

3) Propanedioic acid

4) Ethanedioicacid

5) $HOOC-(CH_2)_4-COOH$ is called

1) Hexanedioic acid

2) Glutaric acid

3) Both 1 and 2

4) Succinic acid

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

6) $CH_2 = CH - CH = CH_2$ is called

1) Butadiene

2) 1, 2 - Butadiene

3) 1, 4 - Butadiene

✓ 4) 1, 3 - Butadiene

7) $CH \equiv C - CH_2 - CH_2 - CH = CH_2$
IUPAC name of the compound is

1) 1 – yne – 5 - hexene

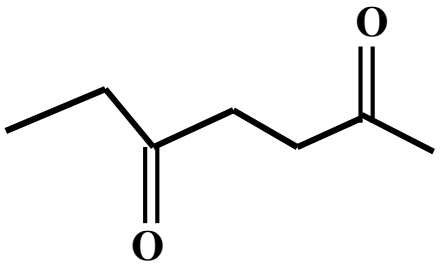
2) Hex – 1 – ene – 5 -yne

3) Hex – 5 – yne – 1 - ene

4) Hex – 1 – en – 5 - yne

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

8) IUPAC name of compound



is

1) Hepta -2, 5 - diketone

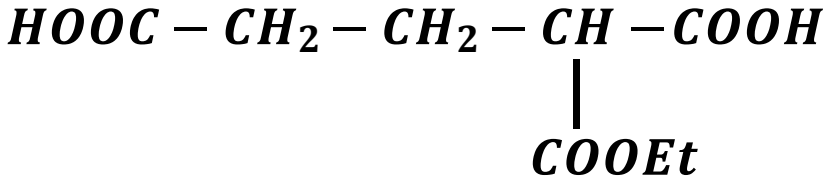
2) 2, 5 - diketoheptane

3) Hepta – 2, 5 - dione

4) Heptane 2, 5 - dione

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

9) IUPAC name of following



1) 2 – Carbalkoxypentanedioic acid

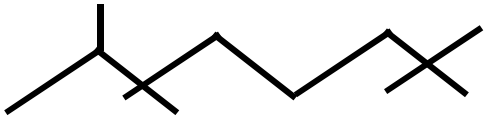
2) 2 – Carbethoxypentane – 1, 5 – dioic acid

3) 2 – Ethylesterpentanedioic acid

4) 2 – Ethylpentanedioic acid

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

10) IUPAC name of the alkane is



1) 2 – Isopropyl – 2, 6, 6 - trimethylheptane

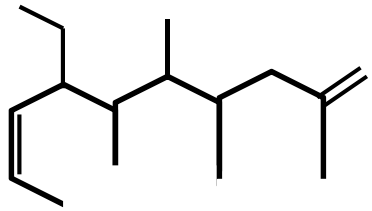
2) 5 – tert-butyl-2isopropyl-2-methylpentane

3) 2, 3, 3, 7, 7 - Pentamethyloctae

4) 2, 2, 6, 6, 7 - Pentamethyloctane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

11) The IUPAC name of



1) 7 – Ethyl – 2, 4, 5, 6- tetramethyldeca -1, 8- diene

2) 7 – ethyl – 2 – methyl 4, 5, 6-tetramethyldeca 1, 7-diene

3) 7 – (I – Propeny) 2, 3, 4, 5- tetramethyl - nonene

4) 4 – Ethyl- 5, 6, 7, 9-tetramethyldeaca- 2, 9-diene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

12) IUPAC name of $CH_3 - CH\,(OCH_3) - CH_2 - NH_2$

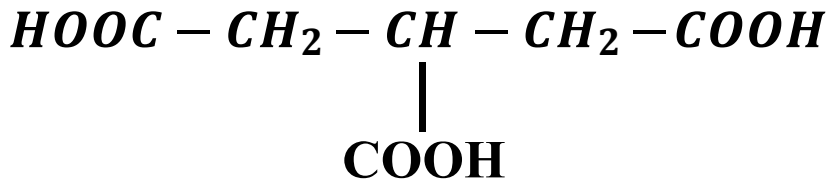
1) 2 – methoxy 1 - propanamine

2) 1 – amino – 2- methoxy propane

3) 1 – amino – 2 –methyl – 2 – methoxy ethane

4) 1 – methoxy – 2 – amino propane

13) IUPAC name of



1) 3 – Carboxy pentane – 1, 5 – dioic acid

2) Propane – 1, 2, 3 – trioic acid

3) 1, 2, 3 – tricarboxylic propane

4) Propane – 1, 2, 3 – tri carboxylic acid

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

14) $CH_3 - CH_2 - CH_2 - CH_2 - CH - CH_2 - CH_2 - CH_2 - CH_2$

$$\begin{array}{l} | \\ CH - CH_3 \\ | \\ CH - CH_3 \\ | \\ CH_3 \end{array}$$

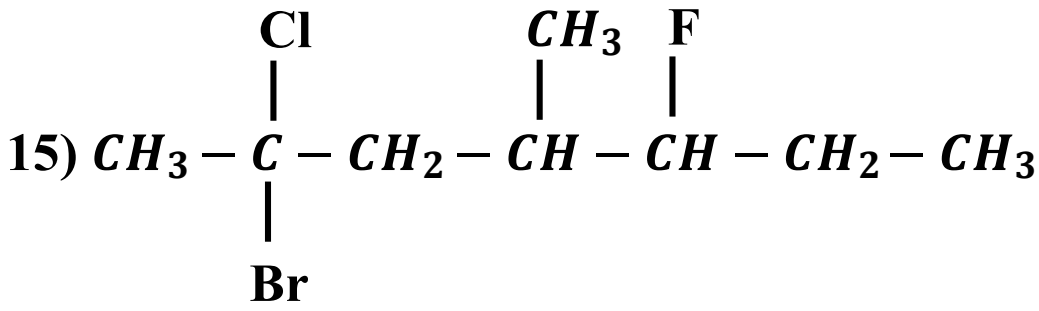
1) 2-Ethyl -4 -methylhexane

2) 2 - Ethylhexane

3) 3 - Ethylhexane

4) 5 – (1, 2 – dimethyl propyl) nonane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

15) 

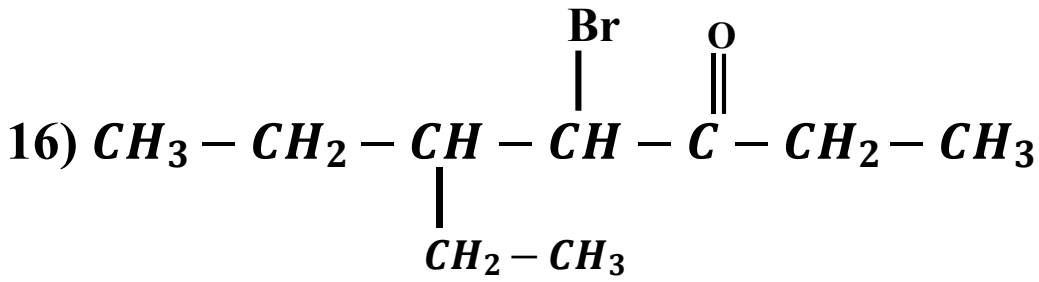
1) 2 – Ethyl – 4 - methylhexane

2) 2 - Ethylhexane

3) 3 - Ethylhexane

4) 2 – Bromo – 2 – chloro – 5 – fluro – 4 - methylheptane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

16) 

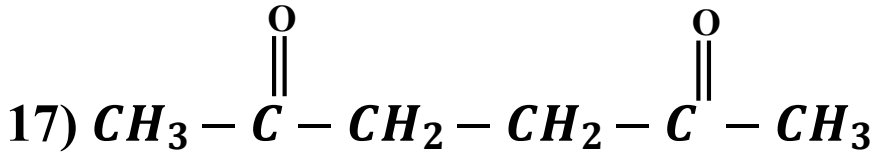
1) 2 – Ethyl – 4 - methylhexane

2) 2 – Amino – 4 - methylpentane

3) 3 - Ethylhexane

✔ 4) 4 – Bromo – 5 – ethyl – 3 - heptanone

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

17) 

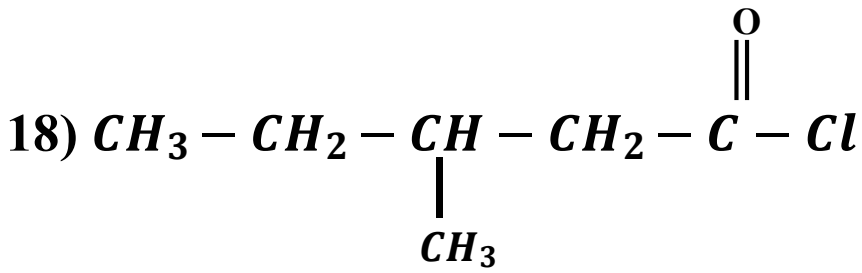
1) 2 – Ethyl – 4 - methylhexane

2) 2 – Amino – 4 - methylpentane

3) 3 - Ethylhexane

✔ 4) 2, 5 – Hexanedione

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

18) 

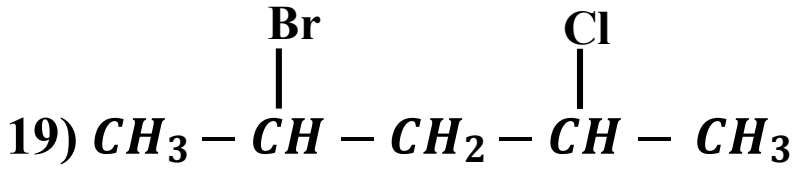
1) 2 – Ethyl – 4 - methylhexane

2) 2 – Amino – 4 - methylpentane

3) 3 - Ethylhexane

✔ 4) 3 – Methylpentanoyl Chloride

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

19) 

1) 2 – Bromo – 4 - Chloropentane

2) 2- Ethylhexane

3) 3 - Ethylhexane

4) 4 – Ethyl – 2- methylhexane

20) The IUPAC name of the compound

$$CH_3 - \underset{\displaystyle CH(CH_3)_2}{\underset{|}{CH}} - CH_2 - CH_2 - CH_3$$ **is**

1) 2 – Isopropyl pentane

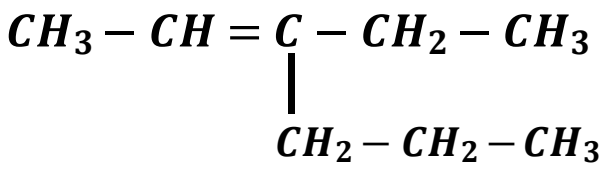
2) 2, 3 – Dimethyl hexane ✓

3) Isononane

4) 2, 4 – Dimethyl hexane

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

21) The IUPAC name of the following



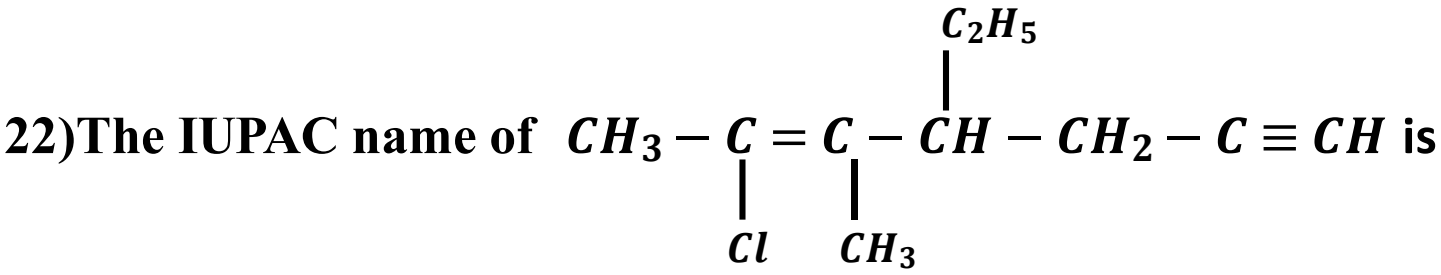
compound is

1) 3 – propyl – 3 - hexene

2) 3 – propyl – 2 - hexene

3) 3 – ethyl – 2 - hexene

4) 4 – ethyl – 4- hexene

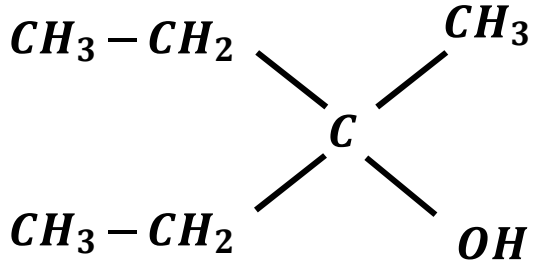
22)The IUPAC name of  is

1) 6 – chloro – 4 – ethyl – 5 – methyl hept – 5 – ene – 1 - yne

2) 6 – chloro – 4 – ethyl – 5 – methyl hept – 1 – yne – 5 - ene

3) 2 – chloro – 4 – ethyl – 3 – methyl hept – 2 – ene – 6 - yne

4) 2 – chloro – 4 – ethyl – 3 – methyl hept – 6 – yne – 2 - ene

23) The IUPAC name of  is

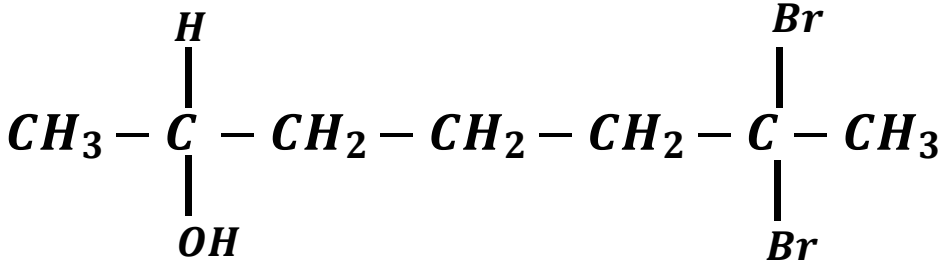
1) 2 – Ethyl – 2 - butanol

2) 3 – Methyl – 3 - pentanol

3) 3 – Ethyl – 3 methyl – 3 - pentanol

4) 1, 1 – Diethyl ethanol

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

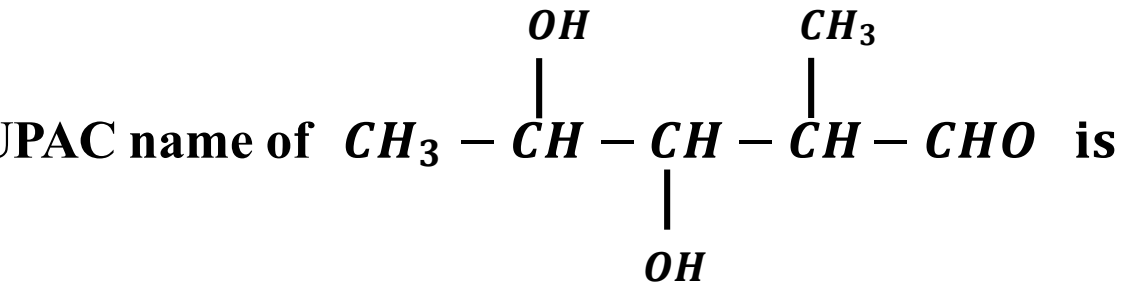
24) The IUPAC name of  is

1) 6, 6 – dibromo heptan – 2 - ol

2) 2, 2 – dibromo heptan – 6 - ol

3) 6, 6 – dibromo heptan – 2 - al

4) 2, 2 – dibromo heptan – 6 - al

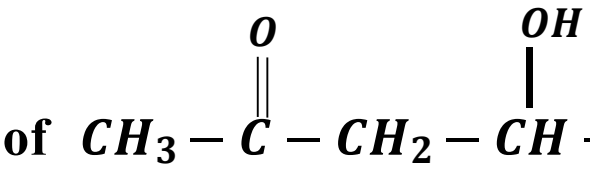
25) The IUPAC name of  is

1) 4 – hydroxy – 1 methyl pentanal

2) 3, 4 – dihydroxy – 2 – methyl pentanal

3) 2 – hydroxy – 4 methyl pentanal

4) 2, 3 – dihydroxy – 4 – methyl pentanal

26) The IUPAC name of  is

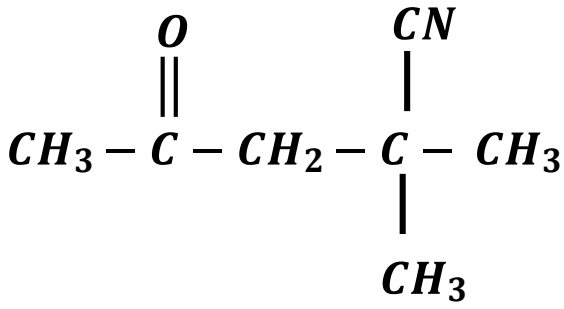
1) 5 – oxo – 4 hydroxy – 2 - pentanone

2) 4 – hydroxy – 5 – al – 2 - pentanone

3) 2 – hydroxy 4 – oxo pentanal

4) 1 – al – 4 – oxo – 2 - pentanol

27) The IUPAC name of the compound



is

1) 4 – Cyano – 4 – methyl – 2 – oxo - pentane

2) 2 – Cyano – 2 – methyl – 4 – oxo - pentane

3) 2, 2 – Dimethyl – 4 – oxo - pentanenitrile

4) 4 – Cyano – 4 – methyl – 2 - pentanone

28) The IUPAC name of the compound

is

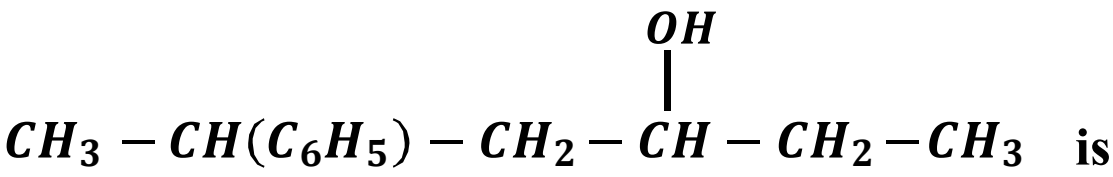
1) Hydroxy pentenoic acid

2) 4 – Hydroxy – 3 – pentenoic acid

3) 4 – Hydroxy – 4 pentenoic acid

4) 3 – Hydroxy – 4 – methyl – 3 – ene – pentenoic acid

29) The IUPAC name of the compound



$CH_3 - CH(C_6H_5) - CH_2 - CH(OH) - CH_2 - CH_3$ **is**

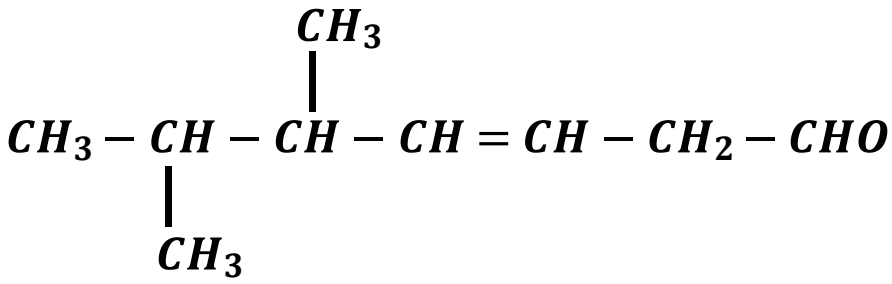
1) 1 – Ethyl -3 – 3 phenyl – 1 - butanol

2) 2 – Phenyl – 4 - hexanol

3) 5 – Phenyl – 3 - hexanol

4) 5 – Benzyl – 3 - hexanol

30) The IUPAC name of the compound



is

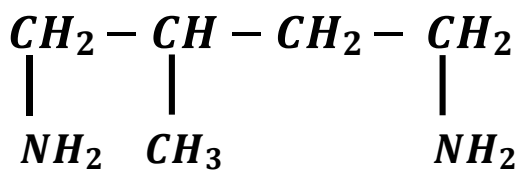
1) 5, 6 – Dimethyl hept – 3 – en – 1 - al

2) 2, 3 – Dimethyl – 4 – en – 7 - al

3) 5, 6 – Dimethyl hept – 2 – ene – 1 - al

4) 5, 6 – Isopropyl pent – 3 – ene – 1 - al

31) The IUPAC name of the compound



is

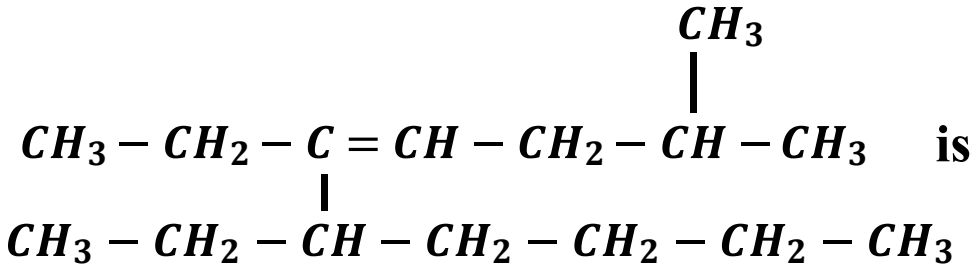
1) 2 – Methyl – butane – 1, 4 - diamine

2) 3 – Methyl – butane – 1, 4 - diamine

3) 2 – Methyl – butane – 1, 3 - diamine

4) 2 – Methyl pentane – 1 , 5 - diamine

32) The correct IUPAC name of the compound



is

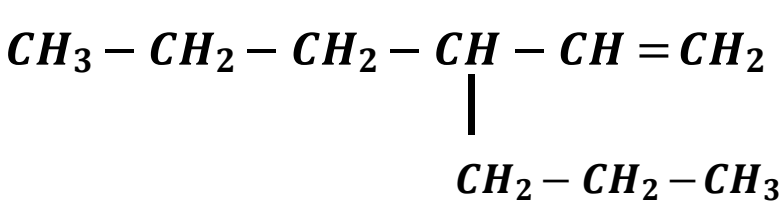
1) 5, 6 – Dimethyl – 8 – methyl dec – 6 - ene

2) 5, 6 – Diethyl – 2 – methyl dec – 4 - ene

3) 6 – Butyl – 5 – ethyl – 3 – methyl oct – 4 - ene

4) 5, 6 – Diethyl – 9 – methyl dec – 6 - ene

33) The correct IUPAC name of the compound is



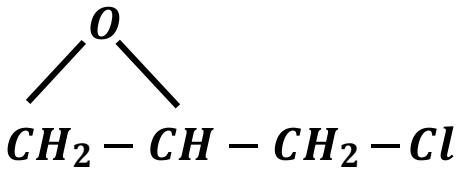
1) 4 – ethenyl heptane

2) 3 – n – propyl – l - hexene

3) 4 – ethenyl hexane

4) 3 – ethenyl heptane

34) The correct IUPAC name of the compound



is

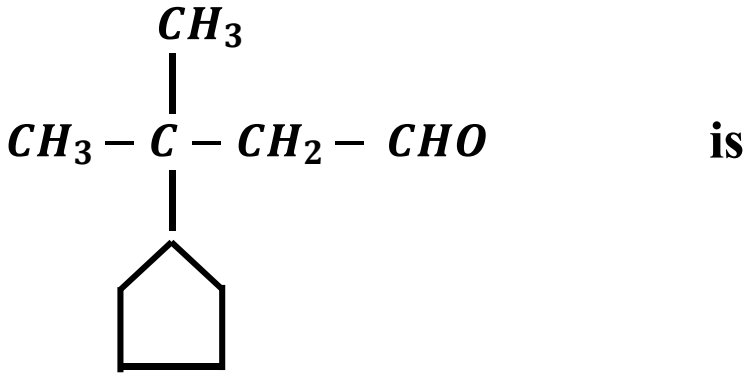
1) 2 – Epoxy – 1 – chloro propane

2) 1, 2 – Epoxy – 1 – chloro propane

3) Epoxy – 1 – chloro propane

4) 3 – Chloro – 1, 2 – epoxy propane

35) The correct IUPAC name of the compound



is

1) 3, 3 – Dimethyl – 3 – cyclopentyl peopanal

2) 3 – Methyl – 3 - cyclopentyl butanal

3) 1 – (1 – Methyl – 1 – formyl) methyl ethylcyclo propane

4) 3, 3 – Diethyl – 3 – cyclo butyl butnal

36) The IUPAC name of the compound

$$OHC - CH_2 - CH_2 - \overset{\overset{O}{\|}}{C} - CH_2 - COOH$$

is

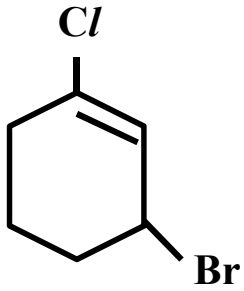
1) 1 – Formyl – 3 – oxo – pentanoic acid

2) 5 – Formyl – 3 – oxo – pentanoic acid

3) 4 – Oxo – 5 – formyl pentanoic acid

4) 3 – Oxo – 1 – formyl pentanoic acid

37) The IUPAC name of the compound



is

1) 1 – Bromo – 3 – chloro cyclohexene

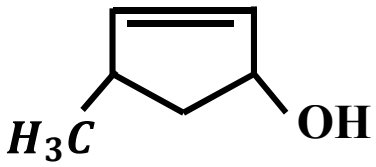
2) 3 – Bromo – 1 – chloro cyclo hex – 1 - ene

3) 2 – Bromo – 6 – chloro cyclo hex – 1 - ene

4) 6 – Bromo – 2 chloro cyclo hex – 1 - ene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

38) The IUPAC name of the compound



is

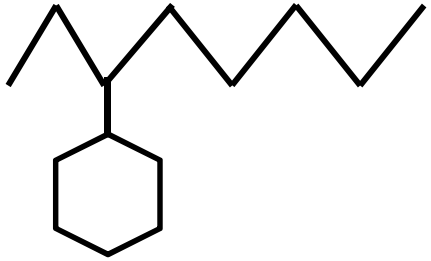
1) 4 – Methyl cyclopent – 2 en – 1 – ol

2) 2 – Hydroxy – 2 – methyl - cyclopentene

3) 3 – Hydroxy – 4 – methyl - cyclopentene

4) 5 – Methl – 3 – cyclopenten – 2 - ol

39) The IUPAC name of the compound



is

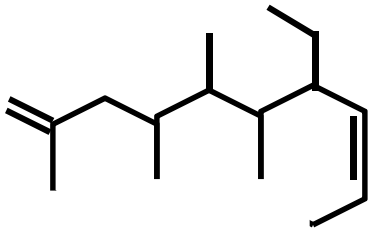
1) Octyl benzene

2) Octyl cyclohexane

3) 3 – Cyclohexyl octane

4) 3 – Phenyl octane

40) The correct IUPAC name of the following

compound  **is**

1) 7 – Ethyl – 2, 4, 5, 6 – tetra methyl deca – 1, 8 - diene

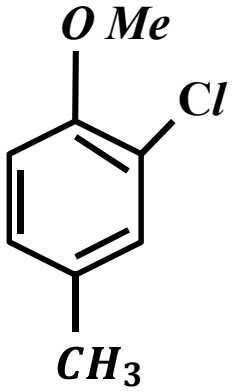
2) 4 – Ethyl – 5, 6, 7, 9 – tetra methyl deca – 2, 9 - diene

3) 2, 4, 5, 6 – Tetra methyl – 7 ethyl – deca – 1, 7 - diene

4) 5, 6, 7, 9 – Tetra methyl deca – 9 - diene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

41) The IUPAC name of the compound



is

1) 2 – Chloro – 4 – methyl anisole

2) 3 – chloro – 1 – methyl anisole

3) 1 - Methyoxy – 2 – chloro - toulene

4) 1 – Methoxy – 4 – methyl – 3 – chloro benzene

42) The structure of 4 – methyl pentanal is

1) $CH_3 - CH(CH_3) - CH_2 - CH_2 - CHO$

2) $CH_3 - CH_2 - CH(CH_3) - CHO$

3) $CH_3 - CH(CH_3) - CH_2 - CH_2 - OH$

4) $CH_3 - CH_2 - CH_2 - CH(CH_3) - CHO$

43) The structure of But-3-yn-1-ol is

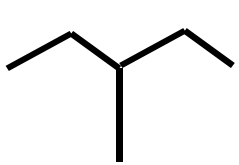
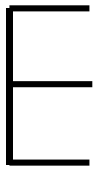
1) $H - C \equiv C - CH_2 - CH_2 - OH$

2) $CH \equiv C - \underset{\displaystyle OH}{\underset{|}{CH}} - CH_3$

3) $HO - C \equiv C - CH_2 - CH_2 - CH_3$

4) $CH_3 - C \equiv C - CH_2 - OH$

44) The IUPAC name of the given compound

 **or**  **is**

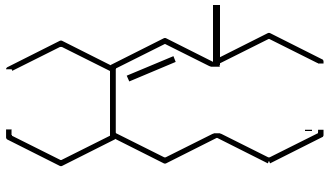
1) 3 – ethyl pentane

2) 1 – ethyl pentane

3) 2 – ethyl pentane

4) 3 – methyl pentane ✓

45) The IUPAC name of the given compound



is

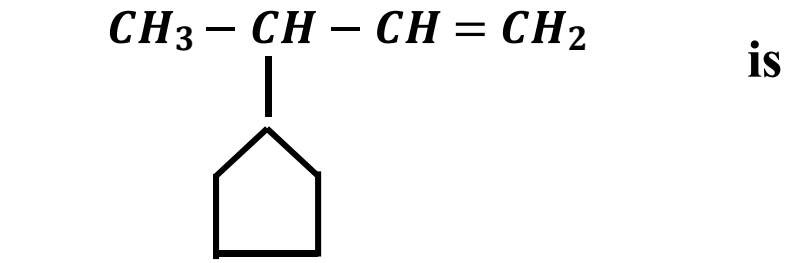
1) 5, 6 – diethyl – 3 – methyl – 4 - decene

2) 7 – methyl – 2, 4, 6 – triene octanal

3) 6 – methyl heptane

4) 3, 3 – dithyl – 5 – ethyl – 4 - decene

46) The IUPAC name of



is

1) 3 – cyclopentyl – 1 - butene

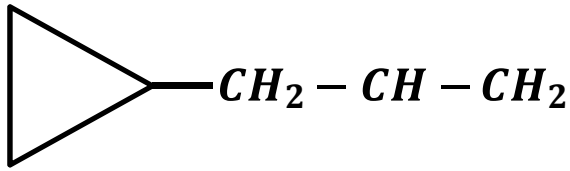
2) 2 – cyclopentyl – 3 - butene

3) 2 – cyclopentyl – 1 - butene

4) 4 – cyclopentyl butene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

47) The IUPAC name of the compound



is

1) 3 – Cyclopropene – 1 - propene

2) Cyclohex – 1 - ene

3) 4 – Cyclopropyl – 1 - butane

4) 3 – Cyclopropyl – 1 - propene

48) The correct IUPAC name of
$CH_3 - CH_2 - CO - NH - CH_3$ is

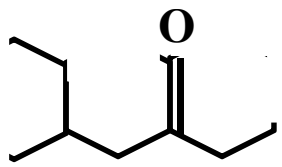
1) N – ethyl ethanamide

2) N – methyl ethanamide

3) N – methyl propanamide ✓

4) N – ethyl methanamide

49) The IUPAC name of the compound



is

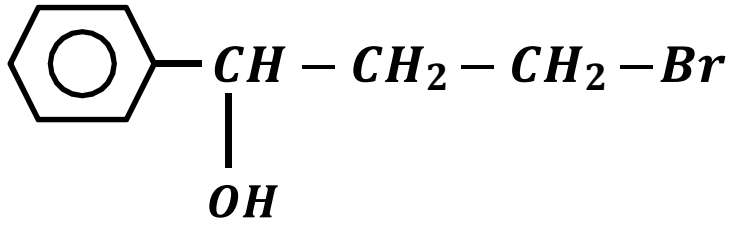
1) 3 – Methyl – 5 - heptanone

2) 5 – Methyl – 3 - heptanone ✓

3) 5 – Ethyl – 5 - hexanone

4) 2 – Ethyl – 4 - hexanone

50) The IUPAC name of the compound



is

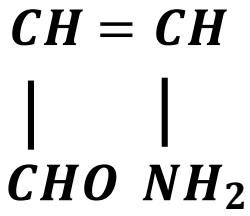
1) 3 – Bromo – 1 – phenyl – 1 - propanol

2) 1 – Bromo – 3 – phenyl – propan – 3 - ol

3) 3 – Bromo – 1 – hydroxy propyl benzene

4) 2 – Bromo – 1 – phenyl – propan – 1 - - ol

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

51) The IUPAC name of  is

1) 1 – Amino prop – 2- enal

2) 3 – Amino prop – 2 - enal

3) 1 – Amino – 2 – formyl ethane

4) 3 – amino – 1 – oxo prop – 2 - ene

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

OBJECTIVE QUESTIONS
PCQS

PCQS

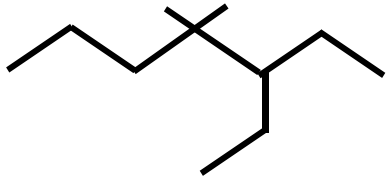
1) **The correct decreasing order of priority for the functional groups of organic compounds in the IUPAC system of nomenclature is**
(AIEEE - 2008)

1) $-COOH, -SO_3H, -CONH_2, -CHO$

2) $-SO_3H, -COOH, -CONH_2, -CHO$

3) $-CHO, -COOH, -SO_3H, -CONH_2$

4) $-CONH_2, -CHO, -SO_3H, -COOH$

2) The IUPAC name of  **is (AIEEE-2007)**

1) 3-Ethyl-4, 4-dimethyl heptane

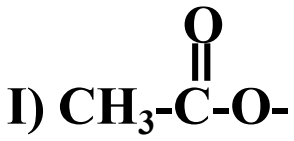
2) 1, 1-Diethyl-2, 2-dimethyl pentane

3) 4, 4-Dimethyl-5, 5-diethyl pentane

4) 5, 5-Diethyl-4, 4-dimethyl pentane

3) The correct order of nucleophilicity among the following is

(AIEEE-2005)

I) 

II) CH_3O^-

III) CN^-

IV) $CH_3\text{-}C_6H_4\text{-}SO_3^-$

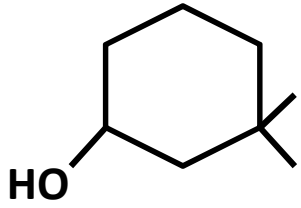
1) I > II > III > IV

2) IV > III > I > I

3) II > III > I > IV

4) III > II > I > IV

4) The IUPAC name of the compound **(AIEEE-2007)**



1) 3, 3-dimethyl-1-cyclohexanol

2) 1, 1-Dimethyl-3-hydroxy cyclohexane

3) 3, 3-Dimethyl-1-hydroxy cyclohexane

4) 1, 1-Dimethyl-3-cyclohexanol

5) Match the following **(2004 M)**

List-I	List-II
A) R – CHO	1) Aldehyde
B) R – CO – R	2) Nitrile
C) R – CO_2H	3) Ketone
D) R – CN	4) Ester
	5) Carboxylic acid

The correct answer is

1) A-1, B-3, C-5, D-2

2) A-3, B-1, C-5, D-2

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

4) A-4, B-1, C-5, D-3

6) 2, 3-dimethyl hexane contains….tertiary…secondary and ….primary carbon atoms, respectively (2003 E)

1) 2, 2, 4

2) 2, 4, 3

3) 4, 3, 2

4) 3, 2, 4

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

7) How many "methyl groups" are present in 2, 5 – dimethyl – 4 – ethyl heptane? (2003 E)

1) 2

2) 3

3) 4

4) 5 ✓

8) IUPAC name of $CH_3COCH(CH_3)_2$ is (A-2003)

1) 4-Methyl isopropyl ketone

2) 3-Methyl-2-butanone

3) Isopropyl methyl ketone

4) 2-Methyl -3- butanone

9) Arrangement of $(CH_3)_3C$-, $(CH_3)_2CH$-, CH_3-CH_2- when attached to benzyl or an unsaturated group in increasing order of inductive effect is (AIEEE 2002)

1) $(CH_3)_3C$-<$(CH_3)_2CH$-<CH_3-CH_2

2) CH_3-CH_2-<$(CH_3)_2CH$-<$(CH_3)_3C$-

3) $(CH_3)_2CH$-<$(CH_3)_3C$-<CH_3-CH_2-

4) $(CH_3)_3C$-<CH_3-CH_2-<$(CH_3)_2CH$-

10) Which is wrong IUPAC name **(AIEEE-2002)**

1) $CH_3CH_2CH_2COOCH_2CH_3$ (Ethyl butanoate)

2) CH_3CHCH_2CHO (3-methyl butanol) (CH_3 branch)

3) CH_3-CH(OH)-CH(CH_3)-CH_3 (3-methyl-2-butanol)

4) $CH_3CHCOCH_2CH_3$ (2-methyl-3-pentanone) (CH_3 branch)

11) The homologue of ethyne is **(2000 E)**

1) C_2H_4

2) C_2H_6

3) C_3H_8

4) C_3H_4

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

12) The structural Formula of 2-methyl-2-butene is…. (2001 M)

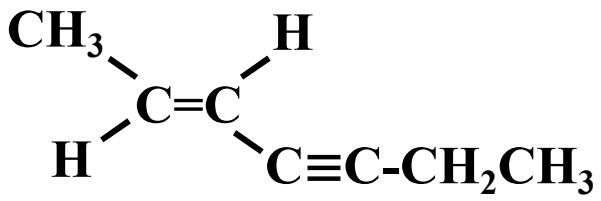
1) CH_3-CH(CH_3)-CH=CH_2

2) CH_3-CH_2-C(CH_3)=CH_2

3) CH_3-CH=CH-CH_3

✓ 4) CH_3-CH=C(CH_3)-CH_3

13) The IUPAC name of the following compound is



1) (E)-5-hptene-3-Yne

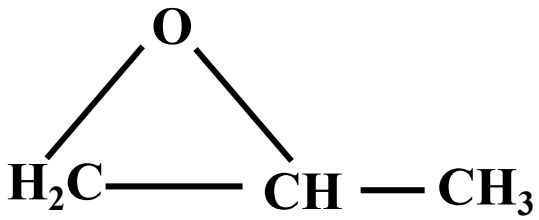
2) (Z)-5-hptene-3-Yne

3) (E)-2-hptene-4-Yne

4) (Z)-2-hptene-4-Yne

ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES & TECHNIQUES

14) The IUPAC name of the compound



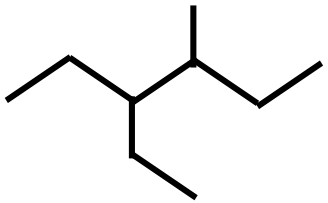
1) Propylene oxide

2) 1, 2, oxo propane

3) 1, 2-Epoxy propane ✓

4) 1, 2-propoxide

15) The correct IUPAC name of the following compound



1) 4-Methyl-3-ethylhexane

2) 3-ethyl-4-methylhexane

3) 3, 4-ethylmethylhexane

4) 4-ethyl-3-methylhexane