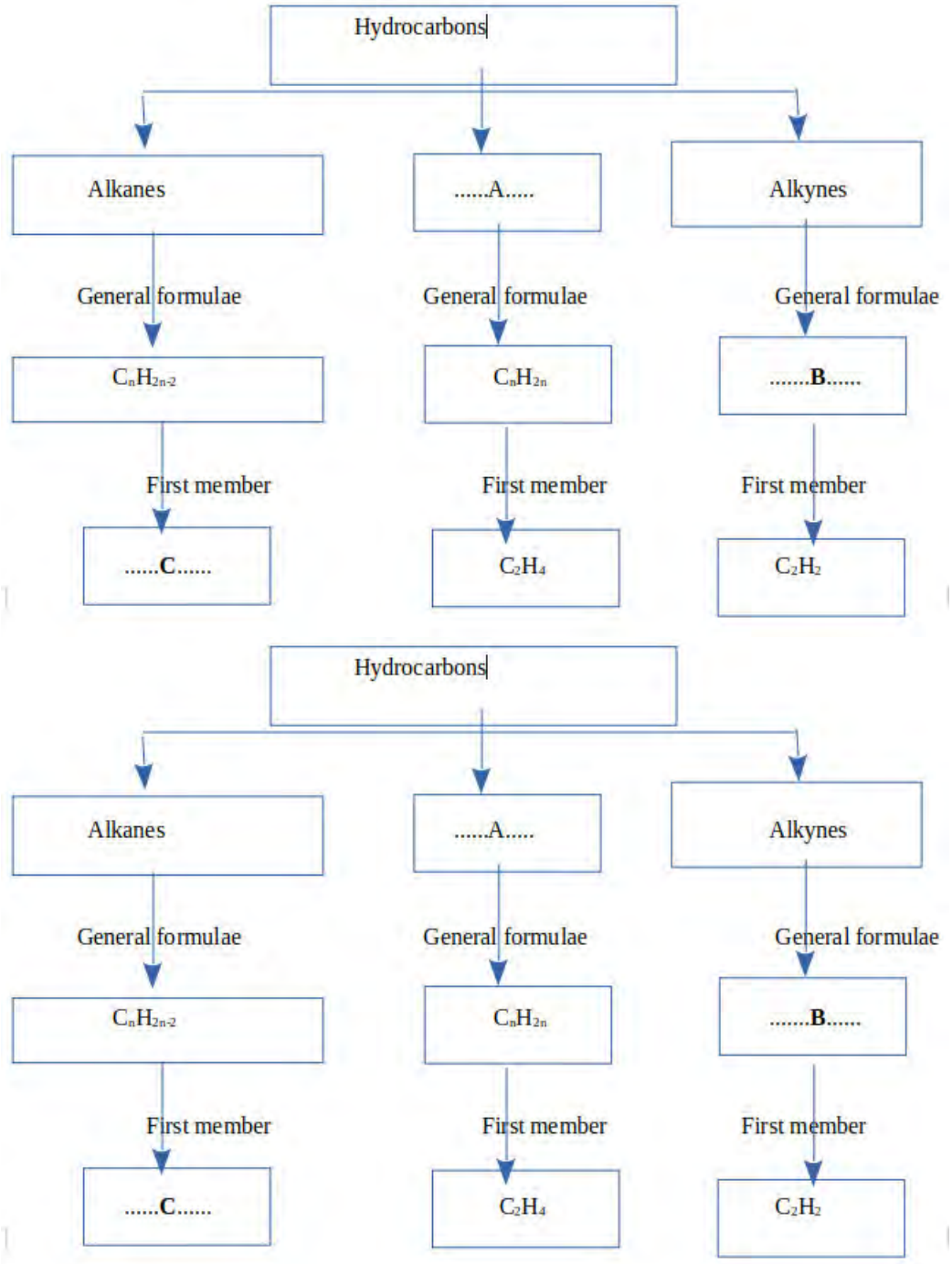
PRINT

Qn No. 1 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Complete the flow chart



Write A,B,and C

Hint.
A - Alkenes

B - C_nH_{2n-2}

C - CH_4

B - C_nH_{2n-2}

.

C - CH_4

Marks :(3)

Hide Answer

Qn No. 2 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The hints regarding a cyclic compound are given.

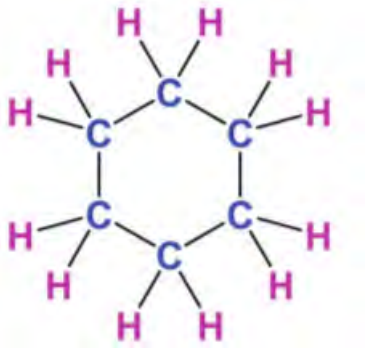
There are 6 carbon atoms.

There are 12 hydrogen atoms

1. **Write its structure**
2. **Write the molecular formula and IUPAC name of the alkane with the same number of carbon atoms**

Hint.

1.



2.C_6 H_{14} Hexane

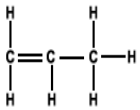
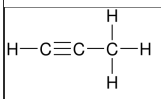
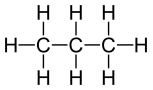
Marks :(4)

Hide Answer

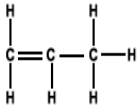
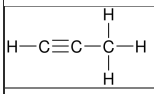
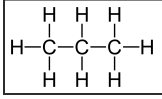
Qn No. 3 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Match the following

A	B	C

	**Propyne**	C_3H_8
	**Propane**	C_3H_6
	**Propene**	C_3H_4

Hint.

A	B	C
	**Propene**	C_3H_6
	**Propyne**	C_3H_4
	**Propane**	C_3H_8

Marks :(3)

Hide Answer

Qn No. 4 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Two hints regarding a hydrocarbon are given

There are four carbon atoms

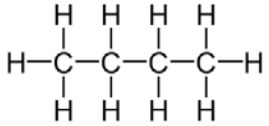
The general formula of the family of compound is C_nH_{2n+2}

1. **Give the molecular formula of this compound**
2. **Write the structure**
3. **What will be the molecular formula of the hydrocarbon with the same number of carbon atoms and having a double bond**
4. **Write the structure of the cyclic hydrocarbon with the same number of carbon atoms**

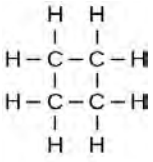
.

Hint.

1. C_4H_{10}

2. 

3. C_4H_8

4. 
cyclobutane

Marks :(4)

Hide Answer

Qn No. 5 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Choose the odd one out . Give reason

(CH_4 , C_3H_4 , C_2H_2 , C_2H_4)

Hint.
CH_4

CH_4 is a saturated hydrocarbon where as the others are unsaturated

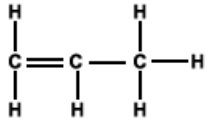
Marks :(2)

Hide Answer

Qn No. 6 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The structure of a hydrocarbon is given

.



1. **Give its molecular formula**
2. **Write the IUPAC name of the compound**
3. **Write the IUPAC name of the cyclic compound with the same molecular formula**

Hint.

1. C_3H_6
2. **Propene**
3. **Cyclopropane**

Marks :(3)

Hide Answer

Qn No. 7 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Complete this series

C_2H_4	C_3H_6	C_4H_8	.....a.....

CH_4	C_2H_6	.....b.....	C_4H_{10}

C_2H_2	..... c.....	C_4H_6	C_5H_8

Hint.
a) C_5H_{10}

b) C_3H_8

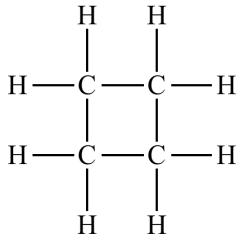
c) C_3H_4

Marks :(3)

Hide Answer

Qn No. 8 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The structure of a hydrocarbon is given



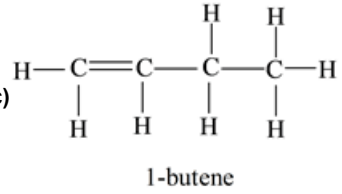
a)Give its molecular formula

b)Write its IUPAC name

c)Write the structure of the unsaturated compound with the same molecular formula

Hint.
a)C_4H_8

b)Cyclobutane

c) 

1-butene

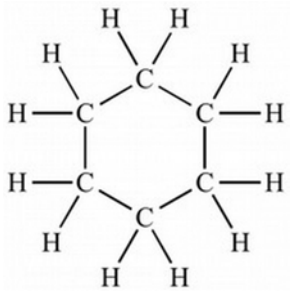
or CH_3-CH=CH-CH_3

Marks :(3)

Hide Answer

Qn No. 9 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Look at the structure of the hydrocarbon



a)To which category of hydrocarbons does this compound belong?

b)Give the molecular formula of this compound

c)Name this compound

Hint.

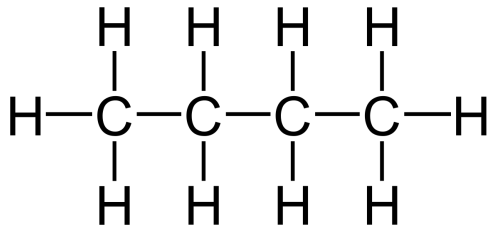
1. **Cyclic compound**
2. **C_6H_{12}**
3. **Cyclohexane**

Marks :(3)

Hide Answer

Qn No. 10 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The structure of a hydrocarbon is given



a) Write its molecular formula

b) What is the word root used to represent the number of carbon atoms ?

c) Write its IUPAC name

Hint.
a)C_4H_{10}

b)But

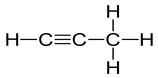
c)Butane

Marks :(3)

Hide Answer

Qn No. 11 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The structure of a hydrocarbon is given



a) What is the molecular formula of this compound

b) Write its IUPAC name

c) To which homologous series does this compound belong?

Hint.
a) C_3H_4

b) Propyne

c) Alkyne

Marks :(3)

Hide Answer

Qn No. 12 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
To which category does CH_3-CH_2-CH_3 belong?

(Alkane,Alkene, Alkyne, Cyclo alkane)

Hint.
Alkane

Marks :(1)

Hide Answer

Qn No. 13 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Write the structure of C_3H_8

Hint.
CH_3-CH_2-CH_3

Marks :(1)

Hide Answer

Qn No. 14 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Name the functional group of CH_3-CH_2-OH ?

Hint.
Hydroxyl

Marks :(1)

Hide Answer

Qn No. 15 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.

The structure of hydrocarbon is given.

CH_3-CH_2-CH_2-CH_2-CH_2-CH_3

(a) Write the word root used to represent the number of carbon atoms in this compound ?

(b) Give the IUPAC name of this hydrocarbon

Hint.
(a) Hex

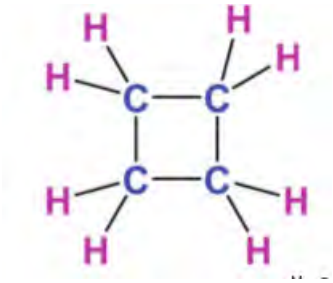
(b) Hexane

Marks :(2)

Hide Answer

Qn No. 16 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Structure of a cyclic compound is given



a)Write the molecular formula of the compound

b)Write its IUPAC name

c) Write the structure of an open chain hydrocarbon having the same formula

Hint.

1. C_4H_8
2. Cyclobutane
3. CH_2 = CH- CH_2-CH_3 / CH_3-CH = CH- CH_3

Marks :(3)

Hide Answer

Qn No. 17 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Some hydrocarbons are given in the box

C_3H_4 , C_2H_6 , C_2H_2 , C_4H_8 , C_5H_{10}, C_3H_8

1. **Which belong to the family with the general formula C_nH_{2n+2}**
2. **Which compounds have a triple bond**

.

3. Select the alkenes from the box ?

Hint.

1. C_2H_6 , C_3H_8
2. C_3H_4 , C_2H_2
3. C_4H_8 , C_5H_{10}

Marks :(3)

Hide Answer

Qn No. 18 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The details of the hydrocarbon P are given below

1. There are 3 carbon atoms
2. The family of compounds with P as a member has a general formula C_nH_{2n}
3. The IUPAC name of P is Propene

1. Write the condensed formula of the compound
2. Write the IUPAC name of the compound which is before P in the homologous series
3. Give the molecular formula of the compound succeeding P in the series

Hint.

1. $CH_2 = CH- CH_3$
2. Ethene
3. C_4H_8

Marks :(3)

Hide Answer

Qn No. 19 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The details of the hydrocarbon P are given below

1. There are 3 carbon atoms
2. The family of compounds with P as a member has a general formula C_nH_{2n}
3. The IUPAC name of P is Propene

1. Write the condensed formula of the compound
2. Write the IUPAC name of the compound which is before P in the homologous series
3. Give the molecular formula of the compound succeeding P in the series

Hint.

1. $CH_2 = CH- CH_3$
2. Ethene
3. C_4H_8

Marks :(3)

Hide Answer

Qn No. 20 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Given below is a homologous series

C_2H_2	....A....	C_4H_6	....B....

1. What are A and B
2. To which family do this belong?
   (Alkane, Alkene, Alkyne)
3. Write the IUPAC name of A

Hint.

1. A - C_3H_4
   B - C_5H_8
2. Alkyne
3. Propyne

Marks :(4)

.

Hide Answer

Qn No. 21 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Given below is a homologous series

C_2H_2	....A....	C_4H_6	....B....

1. **What are A and B**

2. **To which family do this belong?**

   (Alkane, Alkene, Alkyne)

3. **Write the IUPAC name of A**

Hint.

1. **A - C_3H_4**

   B - C_5H_8

2. **Alkyne**
3. **Propyne**

Marks :(4)

Hide Answer

Qn No. 22 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The formulae given below are of a homologous series

CH_4	C_2H_6	C_3H_8

1. **To which category does this belong?**

   (Alkane, Alkene, Alkyne)

2. **Write the general formula of this family**

3. **Write the structure of C_2H_6**

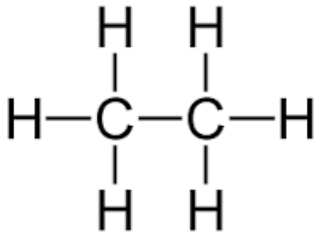
4. **Write the IUPAC name of CH_4**

.

Hint.

1. **Alkane**

2. **C_nH_{2n+2}**

3. 

4. **Methane**

Marks :(4)

Hide Answer

Qn No. 23 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The molecular formulae of some hydrocarbons are given

C_2H_4 , C_2H_2 , C_2H_6 , C_3H_4 , C_3H_8

1. **Which one belongs to the alkene family?**

2. **To which family does C_2H_2 belong?**

3. **Which belong to the family with general formula C_nH_{2n+2}**

Hint.

1. **C_2H_4**
2. **Alkyne**
3. **C_2H_6 , C_3H_8**

Marks :(3)

Hide Answer

Qn No. 24 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Self linking property of carbon atoms is known as ----------

Hint.

.

Catenation

Marks :(1)

Hide Answer

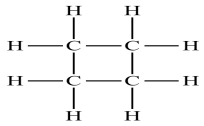
Qn No. 25 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The molecular formula of a cyclic compound is C_4H_8.

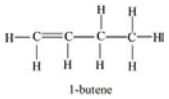
a) Write the structure of this compound

b) Write the structure of the open chain hydrocarbon having the same molecular formula

Hint.
a)



b)



Marks :(3)

Hide Answer

Qn No. 26 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
What is the minimum number of carbon atoms required to form a cyclic comound.

(4 ,3 , 2 , 5)

Hint.3 ***Marks :(1)***

Hide Answer

Qn No. 27 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The formulae given below are of a homologous series

CH_4	C_2H_6	C_3H_8

.

1. To which category does this belong?

   (Alkane, Alkene, Alkyne)

2. Write the general formula of this family

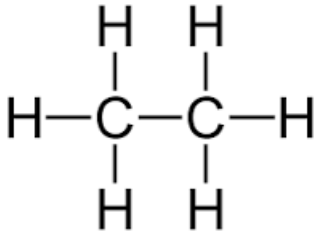
3. Write the structure of C_2H_6

4. Write the IUPAC name of CH_4

Hint.

1. Alkane

2. C_nH_{2n+2}

3. 

4. Methane

Marks :(4)

Hide Answer

Qn No. 28 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.

Match the following

A	B	C
Molecular formula	**Condensed formula**	**IUPAC Name**
C_3H_4	$CH_3\text{-}CH_2\text{-}CH_3$	**Propyne**
C_4H_8	$CH\equiv C\text{-}CH_3$	**Butene**
C_3H_8	$CH_2=CH\text{-}CH_2\text{-}CH_3$	**Propane**

Hint.

A	B	C

Molecular formula	Condensed formula	IUPAC Name
C_3H_4	$CH \equiv C - CH_3$	Propyne
C_4H_8	$CH_2 = CH- CH_2 - CH_3$	Butene
C_3H_8	$CH_3 -CH_2 -CH_3$	Propane

Marks :(3)

Hide Answer

Qn No. 29 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The molecular formula of a hydrocarbon is C_2H_4

a) Name the homologous series of which this is a member

b) Write the molecular formula of the Fifth member

c) Write the structure of C_2H_4 and give its IUPAC name

Hint.
(a) Alkene

(b) C_6H_{12}

(c) $CH_2 = CH_2$; Ethene

Marks :(3)

Hide Answer

Qn No. 30 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The molecular formula of a hydrocarbon is C_2H_4

a) Name the homologous series of which this is a member

b) Write the molecular formula of the Fifth member

c) Write the structure of C_2H_4 and give its IUPAC name

Hint.
(a) Alkene

(b) C_6H_{12}

(c) $CH_2 = CH_2$; Ethene

.

Marks :(3)

Hide Answer

Qn No. 31 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Categorise the given hydrocarbons

C_2H_4 , C_3H_8 , C_4H_6 , CH_4 , C_5H_{10} , C_6H_{10}

(Hint: Hydrocarbons can be catogorised as Alkanes, Alkenes, Alkynes)

Hint.
Alkanes : CH_4 , C_3H_8

Alkenes : C_2H_4 , C_5H_{10}

Alkynes : C_4H_6 , C_6H_{10}

Marks :(3)

Hide Answer

Qn No. 32 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Molecular formulae of some hydrocarbons are given in the box

C_3H_6 , C_4H_8 , C_5H_{10} , C_6H_{12}

a) To which Homologous series do these belong?

b) Give two reasons for them being homologous.

Hint.
a) Alkene

(b) i. Immediate neighbours differ by CH_2

ii. Can be represented by a general formula C_nH_{2n}

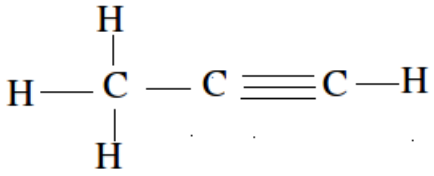
Marks :(3)

Hide Answer

Qn No. 33 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.

The structure of a hydrocarbon is given



a) Write the condensed formula

b) Write its molecular formula

c) Write the structure of the first member of homologous series having this one as a member and give its IUPAC name

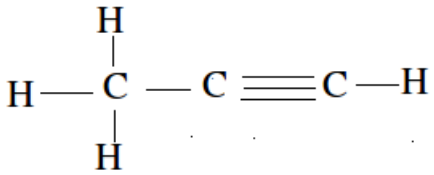
Hint.
എ) CH_3 - C ≡ CH
ബി) C_3H_4
സി) CH ≡ CH Ethyne

Marks :(4)

Hide Answer

Qn No. 34 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The structure of a hydrocarbon is given



a) Write the condensed formula

b) Write its molecular formula

c) Write the structure of the first member of homologous series having this one as a member and give its IUPAC name

Hint.
എ) CH_3 - C ≡ CH
ബി) C_3H_4
സി) CH ≡ CH Ethyne

Marks :(4)

Hide Answer

Qn No. 35 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
C_2H_6 , C_3H_8 , ... , C_5H_{12} are the members of a homologous series

a)Write the molecular formula of the missing compound

b)What is the name of this homologous series

c)Write the structure of C_2H_6

Hint.
a) C_4H_{10}

b) Alkane

c) CH_3 - CH_3

Marks :(3)

Hide Answer

Qn No. 36 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Name the functional group present in the compound CH_3-CH_2-CH_2-OH ?

Hint.
Hydroxyl

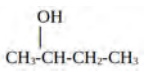
Marks :(1)

Hide Answer

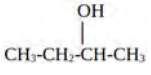
Qn No. 37 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The structures written by two students are given

Student 1:



Student 2 :



Write the IUPAC names and say whether these two are isomeric pairs

.

Hint.
Student 1: Butan -2- Ol.

Student 2: Butan -2- Ol.

As both are the structure of the same compound they are not isomeric pairs

Marks :(4)

Hide Answer

Qn No. 38 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.

C_3H_6 , C_3H_4, C_4H_8, C_4H_{10}

Of the given compounds, the name of which one ends with "-yne"

Hint.C_3H_4 ***Marks :(1)***

Hide Answer

Qn No. 39 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
C_2H_6 , C_3H_8 , ... , C_5H_{12} are the members of a homologous series

a)Write the molecular formula of the missing compound

b)What is the name of this homologous series

c)Write the structure of C_2H_6

Hint.
a) C_4H_{10}

b) Alkane

c) CH_3 - CH_3

Marks :(3)

Hide Answer

.

Qn No. 40 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Some molecular formulae are given

(i) C_5H_{12} (ii)C_5H_{10} (iii) C_5H_8 (iv) $C_5H_{12}O$

a) Which of the above is the molecular formula of Pent-2-ene ?

b)Write the stucture of pent-2-ene.

c) Can there be a compound named pent-3-ene

Hint.
(a) C_5H_{10}

(b) correct structure

(b) No

Marks :(2)

Hide Answer

Qn No. 41 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Write the two possible structures of compounds with molecular formula C_2H_6O.Write their IUPAC names.

Hint.
(a) CH_3-O-CH_3 Methoxymethane

(b) CH_3-CH_2-OH Ethanol

Marks :(4)

Hide Answer

Qn No. 42 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The molecular formula of the carboxylic acid in vinegar is $C_2H_4O_2$

(a) Write the structural formula

(b) Give its IUPAC name

Hint.
(a) CH_3-COOH

(b) Ethanoicacid

Marks :(2)

Hide Answer

.

Qn No. 43 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
CH_3-CH_2-CH_2-CH_2-CH_2-CH_3

(a) Give the IUPAC name of the given open chain compound.

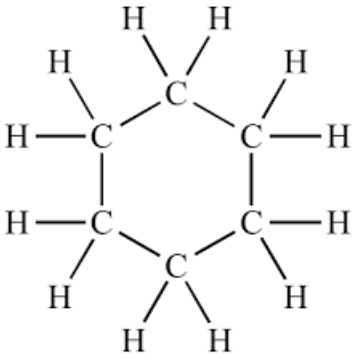
(b) Write the structure of the cyclic compound having the same number of

carbon atoms

(c) Write the IUPAC name of this cyclic compound

Hint.
(a) Hexane

(b)



or any other correct answer

(c) Cyclohexane

Marks :(4)

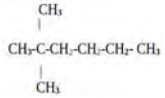
Hide Answer

Qn No. 44 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
(a) Write the structure of 2,2-dimethylhexane

(b) Write the structure of any one its chain isomer

Hint.



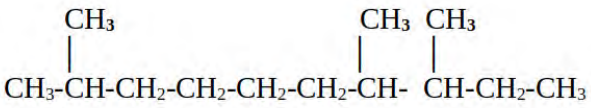
(b) any correct one

Marks :(2)

Hide Answer

Qn No. 45 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.



The main chain consists of 10 carbon atoms and the same is represented by the word root 'dec'

(a) Give the position of the branches

(b) Write the IUPAC name of the compound

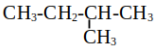
Hint.
(a) 2,7,8

(b) 2,7,8 – Trimethyldecane

Marks :(2)

Hide Answer

Qn No. 46 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn. 

(a) How many carbon atoms are there in the main chain?

(b) Number the position of the carbon with the branch ?

(c) Name the branch?

(d) Write the IUPAC name of the compound

Hint.
(a) 4

(b) 2

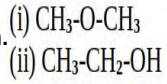
(c) Methyl

(d) 2- Methylbutane

Marks :(4)

Hide Answer

Qn No. 47 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn. 

(a) Write the IUPAC names of the given compounds

(b) Which type of isomers are these compounds ?

Hint.
(a) (i) Methoxymethane

(ii) Ethanol

(b) Functional Isomers

Marks :(2)

Hide Answer

Qn No. 48 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Look at the structure

(a) Write its IUPAC name

(b) Name its position isomer

(c) Write the structure of its functional isomer

Hint.
a)Propan-1-ol

b) Propan-2-ol

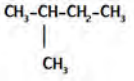
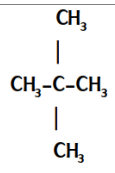
(c 

Marks :(3)

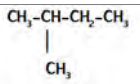
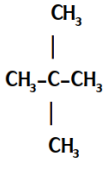
Hide Answer

Qn No. 49 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Match suitably

CH_3-CH_2-CH_2-CH_2-CH_3	**2,2- Dimethylpropane**
	**Pentane**
	**2- Methylbutane**

Hint.

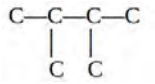
CH_3-CH_2-CH_2-CH_2-CH_3	**Pentane**
	**2- Methyl butane**
	**2,2- Di methyl Propane**

Marks :(3)

Hide Answer

Qn No. 50 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The chain of a hydrocarbon is given



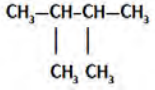
(a) Complete the structure

(b) How many carbon atoms are there in the longest chain

(c) Give the position of the branch

(d) Write down the IUPAC name of the compound

Hint.
(a)



(b) 4

(c) 2,3

(d) 2,3-Dimethylbutane

Marks :(4)

Hide Answer

Qn No. 51 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The structure of a compound is $CH_3\text{-}O\text{-}CH_3$

(a) What is the IUPAC name of the compound

(b) Write the structure of its isomer

(c) What is the IUPAC name of this isomer.

(d) What type of isomers are these compounds?

Hint.
(a) Methoxy methane

(b) $CH_3\text{-}CH_2\text{-}OH$

(c) Ethanol

(d) Functional isomers

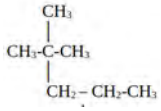
Marks :(4)

Hide Answer

.

Qn No. 52 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.



(a) How many carbon atoms are there in the longest chain of the compound given above?

(b) Give the position of the branches ?

(c) Write the IUPAC name of this compound

Hint.
(a) 5

(b) 2,2

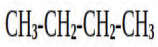
(c) 2,2-Di methyl pentane

Marks :(3)

Hide Answer

Qn No. 53 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
See the structure given



(a) Write the IUPAC name of this compound

(b) Write the molecular formula of the alkene having the same number of

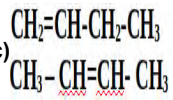
carbon atoms

(c) Write the structures of the position isomers of this alkene.

Hint.
(a) Butane

(b) C_4H_8

(c)



Marks :(4)

Hide Answer

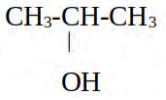
Qn No. 54 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
a) Choose any pairs showing different types of isomerism from the structures given

. CH_3-O-CH_2-CH_3

3. CH_3-CH_2-CH_2- OH

4.



b) To which type of isomerism do these pairs belong?

Hint.

1. CH_3-O-CH_2-CH_3 / CH_3-CH_2-CH_2- OH

|

OH

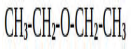
Marks :(4)

Hide Answer

Qn No. 55 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.

Examine the given structure



(a) Give the name of the functional group?

(b) Write the common name of the category of compounds with this functional group?

(c) Give the IUPAC name of the compound

Hint.

(a)Alkoxy group OR Ethoxy

(b)Ethers

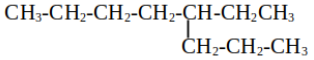
(c)Ethoxyethane

Marks :(3)

Hide Answer

Qn No. 56 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.



(a) How many carbon atoms are there in the parent chain of the above compound?

(b) What is the position of the branched carbon ?

(c) Give the name of the branch?

(d) Write the IUPAC name of the compound

.

Hint.
(a) 8

(b) 4

(c) Ethyl

(d) 4- Ethyloctane

Marks :(4)

Hide Answer

Qn No. 57 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
To which category does the compound CH_3-CH=CH_2 belong?

(Alkane,Alkene, Alkyne, Cyclo alkane)

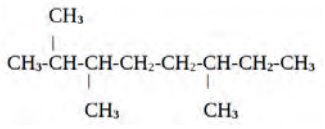
Hint.
Alkene

Marks :(1)

Hide Answer

Qn No. 58 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.



(a) How many branches are there in the compound ?

(b)Give the position of the branches ?

(c) Write the IUPAC name

Hint.
(a) 3

(b) 2,3,6

(c)2,3,6- Trimethyloctane

Marks :(3)

Hide Answer

.

Qn No. 59 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Write the structure of but-2-ene

Hint.
CH_3-CH=CH-CH_3

Marks :(1)

Hide Answer

Qn No. 60 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
To which category does CH≡CH belong?

(Alkane,Alkene, Alkyne, Cyclo alkane)

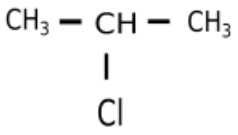
Hint.
Alkyne

Marks :(1)

Hide Answer

Qn No. 61 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
Examine the given structural formula



(a) What is the molecular formula of the compound.

(b) Identify the functional group?

(c) Give the IUPAC name of the compound

(d) Write the structure of its isomer

Hint.
(a) C_3H_7Cl

(b) chloro / -Cl

(c) 2- chloropropane

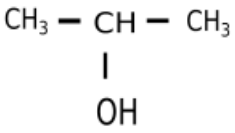
(d) CH_3-CH_2-CH_2-Cl

Marks :(4)

Hide Answer

Qn No. 62 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.



(a) Name the functional group in this compound ?

(b) What is the common name of compounds with this functional group ?

(c) Give the IUPAC name of the compound

Hint.
(a) Hydroxyl

(b) Alcohols

(c) Propan -2-ol

Marks :(3)

Hide Answer

Qn No. 63 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The IUPAC name of a compound is **Pent-2-yne**

(a) To which category of hydrocarbons does this belong ?

(Alkane,Alkene, Alkyne,)

(b) Give the structure of the compound

(c) What is its molecular formula ?

Hint.
(a) Alkyne

(b) CH_3-C≡C-CH_2 -CH_3

(c) C_5H_8

Marks :(3)

Hide Answer

Qn No. 64 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The structure of a compound is CH_3-C≡C-CH_3

(a) What is its molecular formula

(b) To which category of hydrocarbon does this hydrocarbon belong

(Alkane,Alkene, Alkyne,)

(c) Give the IUPAC name of this compound

Hint.
(a) C_4H_6

(b) Alkyne

(c) But -2-yne

Marks :(3)

Hide Answer

Qn No. 65 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
The IUPAC name of a compound is **Pent-2-yne**

(a) To which category of hydrocarbons does this belong ?

(Alkane,Alkene, Alkyne,)

(b) Give the structure of the compound

(c) What is its molecular formula ?

Hint.
(a) Alkyne

(b) CH_3-C≡C-CH_2 -CH_3

(c) C_5H_8

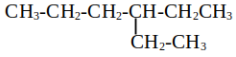
Marks :(3)

Hide Answer

Qn No. 66 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Write the structure of

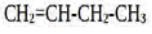
3- Ethylhexane

Hint. 

Marks :(1)

Hide Answer

Qn No. 67 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn. 
(a) Write the IUPAC name of the compound

(b) What will be the IUPAC name of the compound, if the double bond were in between the second and third carbon atoms?

Hint.
(a)But-1-ene

(b)But -2-ene

Marks :(2)

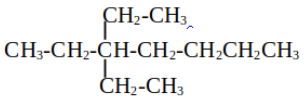
Hide Answer

Qn No. 68 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
Write the structure of

3,3 – Diethylheptane

Hint.



Marks :(1)

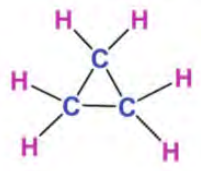
Hide Answer

Qn No. 69 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

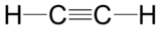
Qn.
Some carbon compounds are given

i) $CH_2=CH_2$

ii)



iii)



ethyne
(acetylene)

iv) CH_3-CH_2-CH_3

a) Catogarise the above as alkane, alkene, alkyne and cyclic compound

b) Most of the compounds in nature contains carbon. Do you agree with this statement? Justify

Hint.
i) Alkene

ii) Cyclic compounds

iii) Alkyne

iv) Alkane

b) Agree.

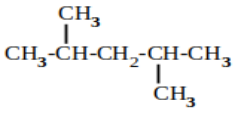
Carbon forms extremely large number of compounds. Compounds with single,double, and triple bonds between carbon atoms can be formed .Has self linking property catenation to form chains and rings

Marks :(4)

Hide Answer

Qn No. 70 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.



(a) How many carbon atoms are there in the main chain ?

(b)Give the position of the branches?

(c) Write the IUPAC name

Hint.
(a) 5

(b) 2,4

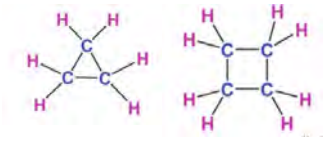
(c)2,4- Dimethylpentane

Marks :(3)

Hide Answer

Qn No. 71 ***Chapter Name:Nomenclature of Organic compounds and Isomerism***

Qn.
A few structures are given

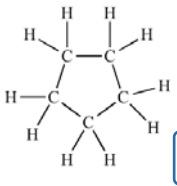


a) By which name are these compounds known?

b) How many hydrogen atoms will be there in such a compound with five carbon atoms. Write the structure and give its IUPAC name

Hint.
a) Cyclic compounds

b) 10 atoms, Cyclopentane

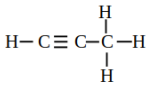


Marks :(4)

Hide Answer

Qn No. 72 *Chapter Name:Nomenclature of Organic compounds and Isomerism*

Qn.
The structure of a hydrocarbon is given



1.Write the IUPAC name of this compound

2.Write the general formula of the family having this one as a member

(C_nH_{2n+2} , C_nH_{2n} , C_nH_{2n-2})

3.Write the molecular formula of the compound after this one in the homologous series

Hint.

1. **Propyne**
2. **C_nH_{2n-2}**
3. **C_4H_6**

Marks :(3)

Hide Answer

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