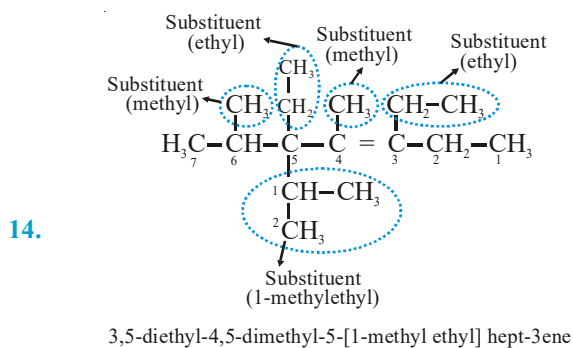
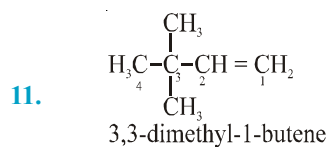
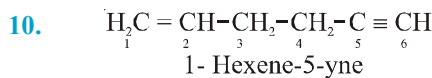
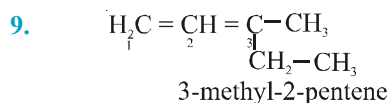
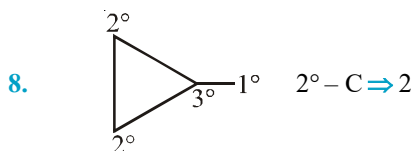
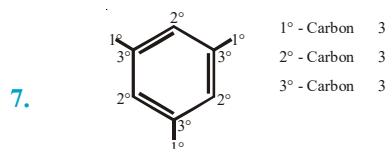
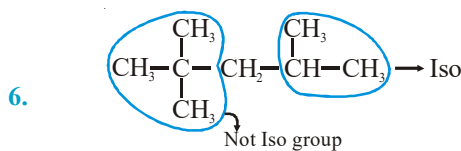
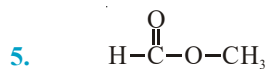
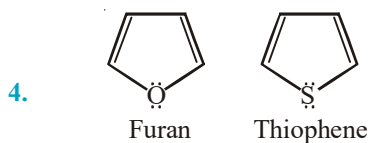
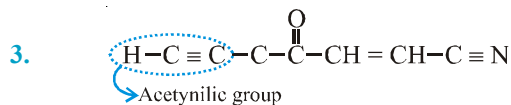
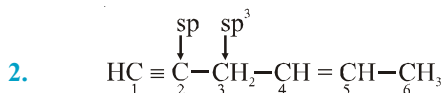
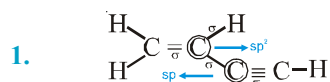


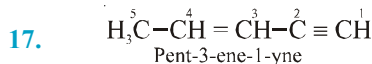
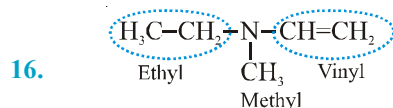
HINTS & SOLUTIONS

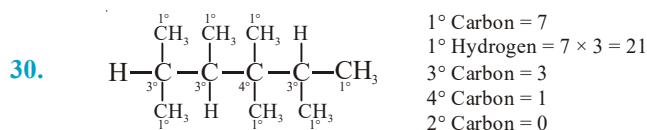
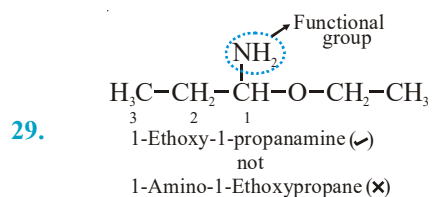
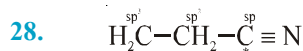
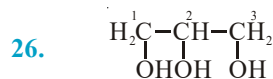
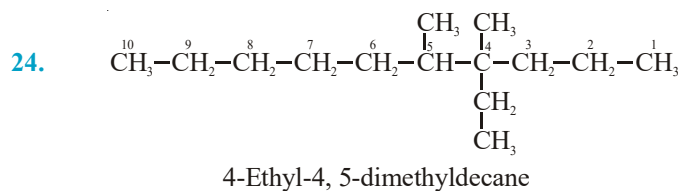
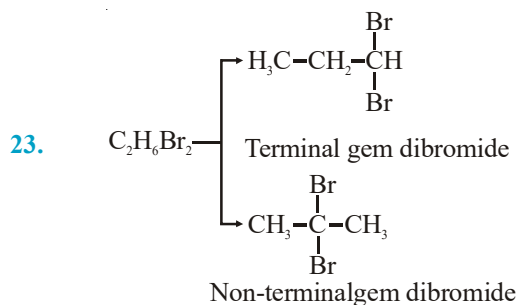
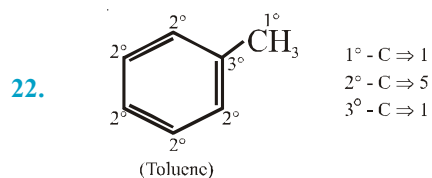
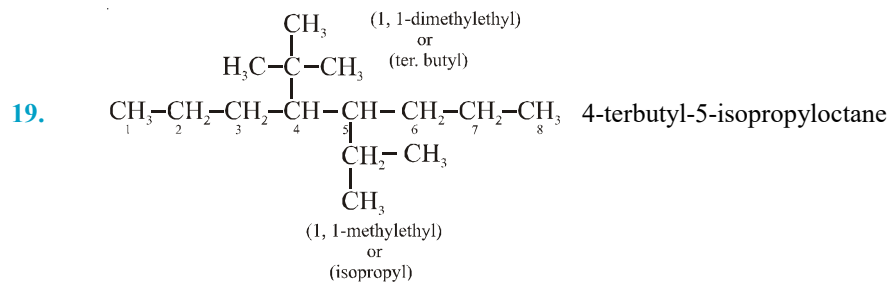
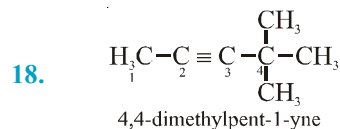
EXERCISE - 1

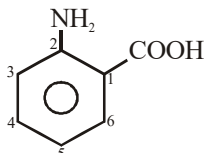
Single Choice



15. Compound having hetero-atom (as O, N, S etc.) in cycle are known as heterocyclic compound.



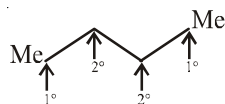


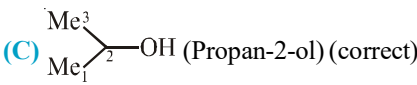
49. 
- 2-aminobenzenecarboxylic acid

EXERCISE - 2

Part # I : Multiple Choice

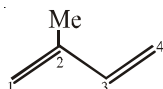
1. (A) The general formula of alkane is C_nH_{2n+2} .
 (B) They have different physical properties, but same chemical properties
 (C) International Union of Pure and Applied Chemistry
 (D) It is correct



2. (A), (B) and (C) are self explanatory
 (D) is wrong; alkyne consists of one triple bond
6. (A) It is common name
 (B) It is a saturated compound since it does not have $(C = C)$ or $(C \equiv C)$ bonds
 (C) They are used in trivial system
 (D) It is correct
7. (A) It is a saturated compound
 (B) It contains one 4° C atom
 (C)  (Propan-2-ol) (correct)
 (D) $CH_3 - C \equiv N$ (Ethane nitrile)

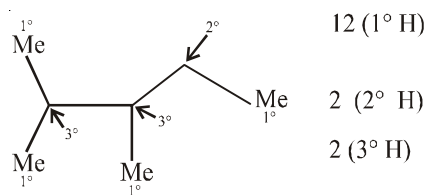
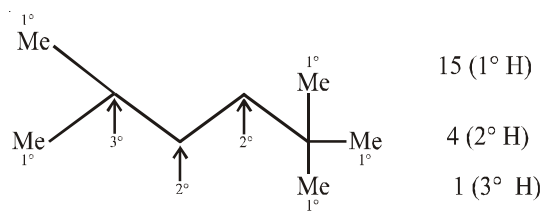
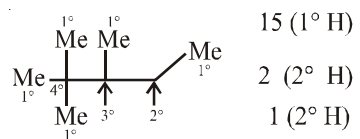
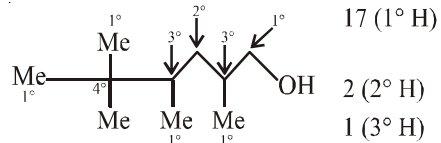
Part # II : Assertion & Reason

1. As sp^2 hybridised C atoms are planar, they lie in one plane $\left(\begin{array}{c} > C = C < \\ \uparrow \quad \uparrow \\ sp^2 \quad sp^2 \end{array} \right)$

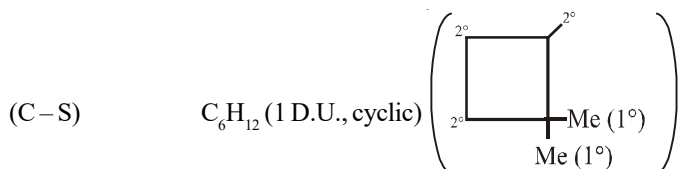
2. Isoprene is 

EXERCISE - 3

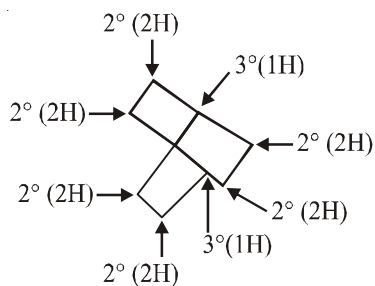
Part # I : Matrix Match Type

6. (A-R)  12 (1° H)
2 (2° H)
2 (3° H)
- (B-P)  15 (1° H)
4 (2° H)
1 (3° H)
- (C-S)  15 (1° H)
2 (2° H)
1 (2° H)
- (D-Q)  17 (1° H)
2 (2° H)
1 (3° H)

8. (A-Q) C_8H_{18} , saturated alkane.
(B-R) C_6H_{12} (1 D.U. means alkene or cyclic) It can be only (r).



- (D-P) C_8H_{14} (1 D.U., cyclic)
 2° (12H) 1° (H)

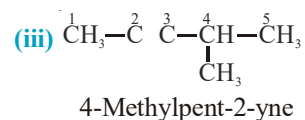
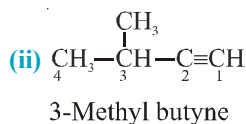
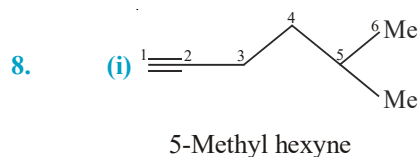
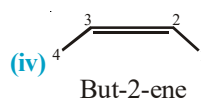
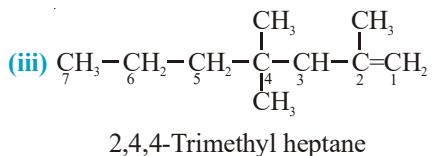
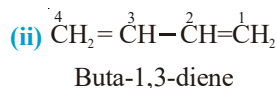
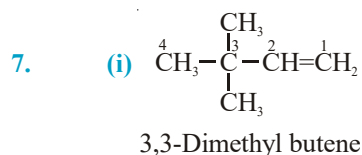
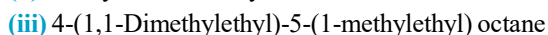
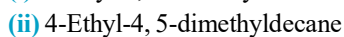
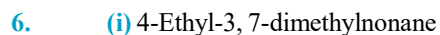
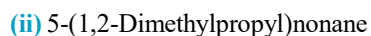
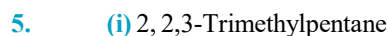
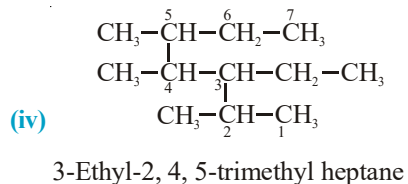
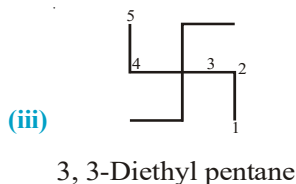
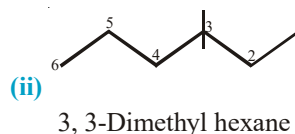
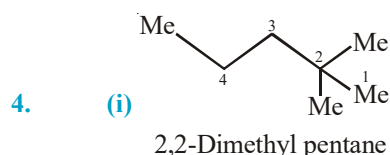
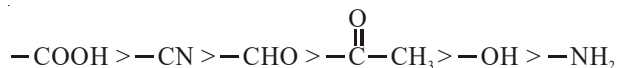


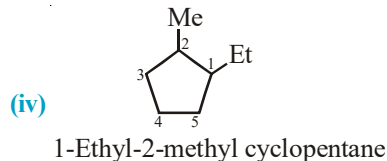
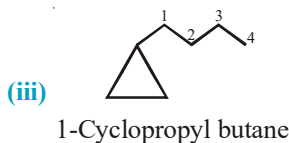
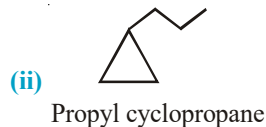
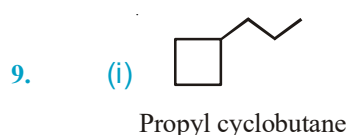
NOMENCLATURE OF ORGANIC COMPOUND

EXERCISE - 4

Subjective Type

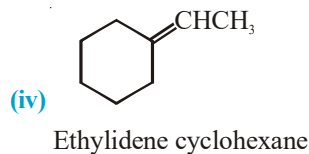
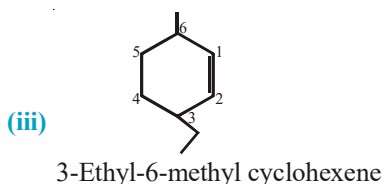
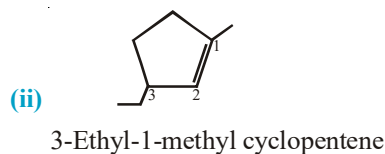
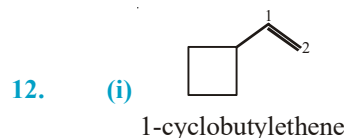
1. (a) Homocyclic, alicyclic, saturated
(b) Homocyclic, aromatic, unsaturated
(c) Heterocyclic, alicyclic, saturated
(d) unsaturated.
2. (a) isopropyl group
(b) sec-butyl group
(c) Tert-butyl group
(d) Ethyl group
(e) n-propyl group
3. Seniority order of functional groups :





10. (a) 1, 5-Dimethylcyclopent-1-ene
(b) 1-Cyclohexyl-4-cyclopropylbutane
(c) 1-(1,1-Dimethylethyl)-2-(1-methylethyl) cyclopentane

11. (a) ring (b) side chain (c) ring (d) ring
(e) side chain (f) side chain



13. (a) 1, 3, 5 Trihexylcyclohexane
(b) 3 - Cyclopropylprop-1-ene
(b) Cyclohexylcyclohexane
(d) 1-(Hex-3-enyl)cyclohex-1-ene

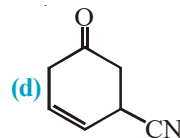
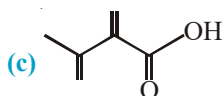
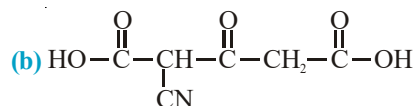
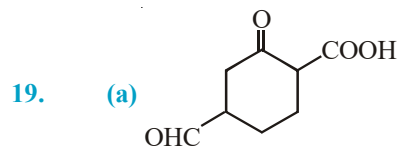
14. (a) Methoxyethane
(c) Epoxyethane
(b) Ethoxyethane
(d) 1-chloro-2, 3-epoxypropane

15. (a) 4-Cyclohexylbut-3-en-2-one
(c) 2-Methylpropane-2-ol
(b) 2-(2-hydroxybutyl) cyclohexan-1-ol
(d) 3-Chlorobutan-1-ol

16. (a) 1-Chloro-5-methylhexan-2-one
(c) 2-Methoxy-N-methylethan-1-amine
(b) 2-Bromo-2-chloro-5-fluoro-4-methylheptane
(d) 3-Bromo-2-chloro-5-methyloctane

17. (a) Ethanoic 2-methylpropanoic anhydride
(c) Pent-2-enedioic anhydride
(b) Benzenecarboxylic anhydride
(d) Cyclohexane-1, 2-dicarboxylic anhydride

18. (a) Methyl-2-ethylbutanoate
(c) 3,3 Dimethyl-2-(1-methylethyl)butanamide
(b) Ethyl-3-methylpent-4-en-1-oate

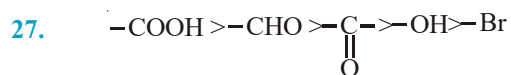
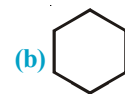
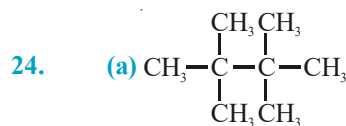
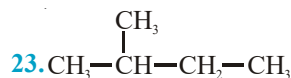
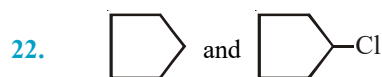


20. (a) Methylbenzene
(c) Diphenylmethane

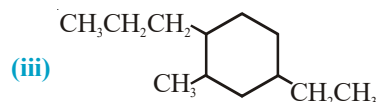
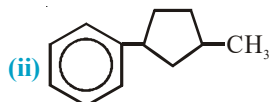
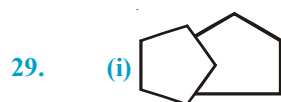
- (b) Isopropylbenzene
(d) 1-Chloro-1-phenylethane.

21. (a) Cyclohexylbenzene
(c) 1,2-Dichloro-4-ethyl-5-nitrobenzene

- (b) 4-Bromo-3, 6-diphenyloctane
(d) 4-Chloro-1-nitro-2-propylbenzene

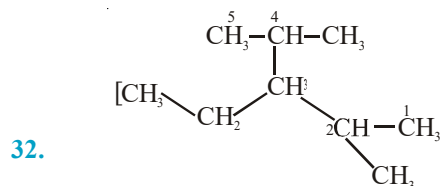


28. (a) Ethyl-2-cyano-5-cyclopropyl-4, 6-dimethyl-3-oxohept-5-en-1-oate
(b) Isopropyl-3-hydroxycyclohexane carboxylate.
(c) 2-(3'-oxobutyl) cyclohexane-1-one.



30. (i) (a) C_8H_{18} (b) C_8H_{12} (c) C_8H_{12} (ii) (a) 4 (b) 3

31. (i) 3-(N, N-dimethylamino) -3-methyl pentane;
(ii) propan-1, 3-dioic acid
(iii) 3-Carbamoylpent-3-enoic acid



3-Ethyl-2,4-dimethyl pentane]

33.
$$\begin{array}{c} \text{1} \quad \text{2} \quad \text{3} \quad \text{4} \quad \text{5} \\ \text{[CH}_2 = \text{C} - \text{CH}_2 - \text{CH} - \text{CH}_3 \\ \quad \quad | \quad \quad | \\ \text{CH}_3 - \text{CH} - \text{CH}_3 \quad \text{CH}_3 \end{array}$$

2-Isopropyl-4-methylpentene
or 4-Methyl-2-(methyl ethyl) pentene
34. [5-Methyl hepta-1,3,6-triene]
35.
$$\begin{array}{c} \text{CH}_3 - \text{CH} = \text{C} - \text{CH}_2 - \text{OH} \\ \quad \quad | \\ \quad \quad \text{CH}_2 - \text{CH}_3 \end{array}$$

2-Ethylbut-2-en-1-ol]
36.
$$\begin{array}{c} \text{CH}_3 - \text{C} - \text{CH}_2 - \text{C} - \text{CH}_3 \\ \quad \quad || \quad \quad || \\ \quad \quad \text{O} \quad \quad \text{O} \end{array}$$

Pentane-2, 4-dione]
37.
$$\begin{array}{c} \text{4} \quad \text{3} \quad \text{2} \quad \text{1} \\ \text{[CH}_2 = \text{CH} - \text{C} - \text{CH}_2 \\ \quad \quad \quad | \quad \quad | \\ \quad \quad \quad \text{O} \quad \quad \text{OH} \end{array}$$

1-Hydroxybut-3-en-2-one]
38.
$$\begin{array}{c} \text{OH} \quad \text{O} \\ | \quad || \\ \text{[CH}_2 = \text{CH} - \text{CH} - \text{C} - \text{C} \equiv \text{CH} \\ \quad \quad \quad | \quad \quad | \\ \quad \quad \quad \text{6} \quad \quad \text{5} \quad \quad \text{4} \quad \quad \text{3} \quad \quad \text{2} \quad \quad \text{1} \end{array}$$

4-hydroxyhex-5-en-1-yn-3-one]
39. [2,2,6,7-tetramethyloctane]
40. [3-Ethyl-4,6-dimethyloctane]
41. [1,2-epoxy propane]
42. [1,3-cyclobutadiene]
43. [1,3,4-trimethyl-1-cyclobutene]
44. [1-ethyl-2-methylcyclopentane]
45. [Cyclopropanecarboxylic acid]
46. [Methylene cyclohexane]
47. [1-Cyclohexyl-1-propanone]
48. [5-amino-6-(1-methylpropyl)cyclo-hex-2-enol]
49. [Ethyl cyclohexanecarboxylate]
50. [1-(3-butenyl)cyclopentene]
51. [cyclopent-2-en-1-one]
52. [Methyl-2-methoxy-6-methyl-3-cyclohexene carboxylate]
53. [2-bromo-2-methyl cyclopentanone]
54. [Bicyclo(2.2.1)heptane]
55. [Bicyclo (3.1.0) hexane]
56. [spiro (2.5) octane]
57. [4-isopropyl-1-propyl-1-cyclohexene or 4-(1-methylethyl)-1-propyl cyclohexene]
58. [4-chloro-1-cyclopentyl pentane-2-one]
59. [3-ethoxy-1(1-nitrocyclohexyl)-hex-4-en-1-one]
60. [1,3-diphenyl-1, 4-pentadiene]