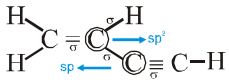
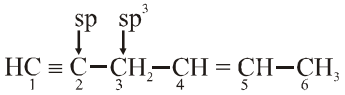
HINTS & SOLUTIONS

EXERCISE - 1
Single Choice

1.



2.



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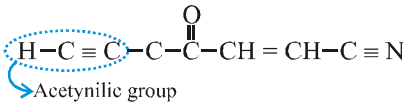

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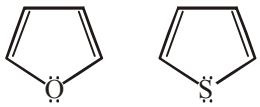

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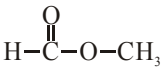
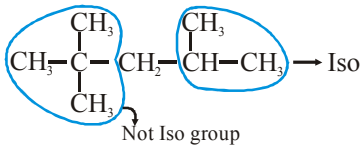


6.



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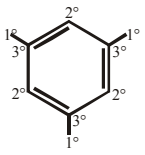
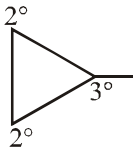


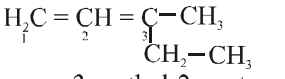
1° - Carbon 3
2° - Carbon 3
3° - Carbon 3

8.



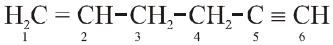
2° – C ⇒ 2

9.



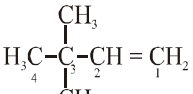
3-methyl-2-pentene

10.



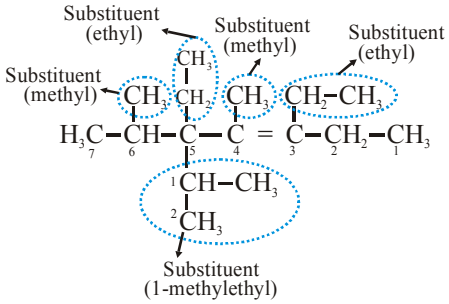
1- Hexene-5-yne

11.



3,3-dimethyl-1-butene

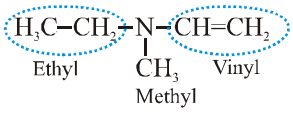
14.



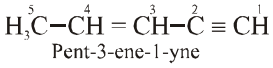
3,5-diethyl-4,5-dimethyl-5-[1-methyl ethyl] hept-3ene

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

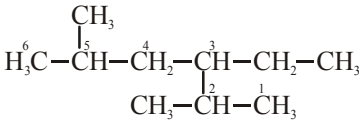
16.

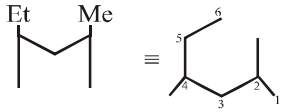


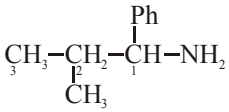
17.

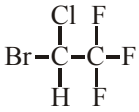


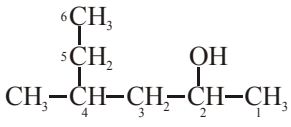
Pent-3-ene-1-yne

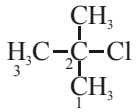
32. 
3-Ethyl-2,5-dimethylhexane

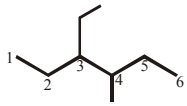
33. 
2,4-dimethylhexane

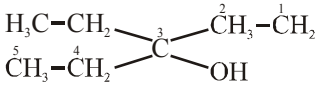
34. 
2-methyl-1phenyl propane-1- amine

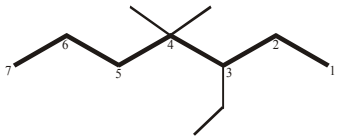
35. 

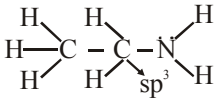
36. 
4-methyl-2-hexanol

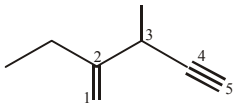
37. 
2-chloro-2-methylpropane

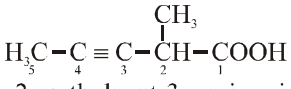
38. 
3-ethyl-4-methylhexane

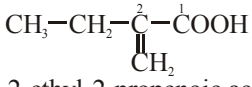
39. 
3-Ethylpentane-3-ol

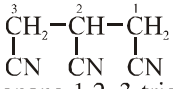
40. 
3-Ethyl-4, 4-dimethylheptane

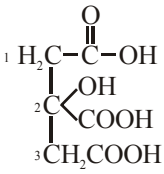
41. 

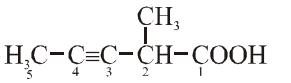
42. 
2-ethyl-3methyl-1-pentene-4-yne

43. 
2-methylpent-3-ynoic acid

44. 
2-ethyl-2-propenoic acid

45. 
Propane-1,2, 3-tricarbonitrile

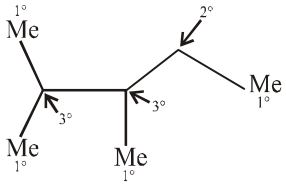
46. 
2-Hydroxypropane-1,2,3-tricarboxylic acid

48. 
2-methylpent-3-ynoic acid

EXERCISE - 3

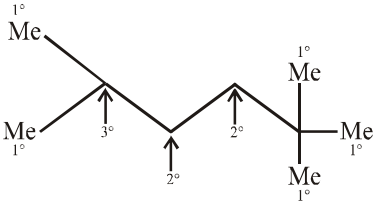
Part # I : Matrix Match Type

6. (A – R)



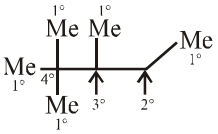
12 (1° H)
2 (2° H)
2 (3° H)

(B – P)



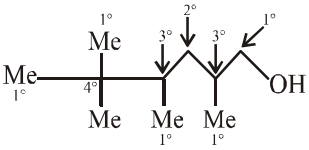
15 (1° H)
4 (2° H)
1 (3° H)

(C – S)



15 (1° H)
2 (2° H)
1 (2° H)

(D – Q)

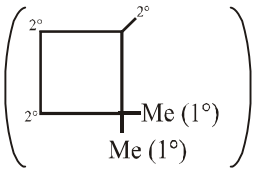


17 (1° H)
2 (2° H)
1 (3° H)

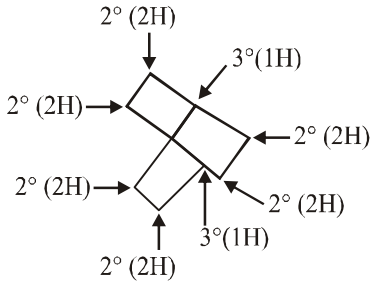
8. (A – Q) C_8H_{18}, saturated alkane.

(B – R) C_6H_{12} (1 D.U. means alkene or cyclic) It can be only (r).

(C – S) C_6H_{12} (1 D.U., cyclic)



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

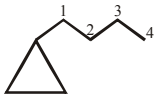


9. **(i)** 

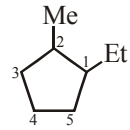
Propyl cyclobutane

(ii) 

Propyl cyclopropane

(iii) 

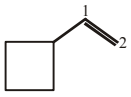
1-Cyclopropyl butane

(iv) 

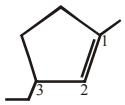
1-Ethyl-2-methyl cyclopentane

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

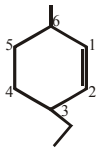
11. **(a)** ring **(b)** side chain **(c)** ring **(d)** ring
(e) side chain **(f)** side chian

12. **(i)** 

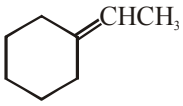
1-cyclobutylethene

(ii) 

3-Ethyl-1-methyl cyclopentene

(iii) 

3-Ethyl-6-methyl cyclohexene

(iv) 

Ethylidene cyclohexane

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

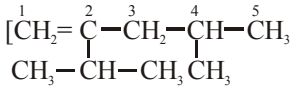
14. **(a)** Methoxyethane **(b)** Ethoxyethane
(c) Epoxyethane **(d)** 1-chloro-2, 3-epoxypropane

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

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

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

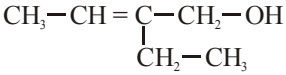
18. **(a)** Methyl-2-ethylbutanoate **(b)** Ethyl-3-methylpent-4-en-1-oate
(c) 3,3 Dimethyl-2-(1-methylethyl)butanamide

33. 

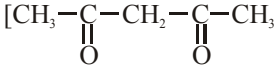
2-Isopropyl-4-methylpentene

or 4-Methyl-2-(methyl ethyl) pentene

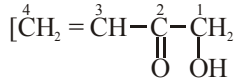
34. [5-Methyl hepta-1,3,6-triene]

35. 

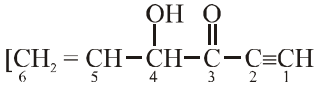
2-Ethylbut-2-en-1-ol]

36. 

Pentane-2, 4-dione]

37. 

1-Hydroxybut-3-en-2-one]

38. 

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]

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