

Practice Paper

Time : 2 Hour

11th Science (JEE Paper)
GOC - NOMENCLATURE

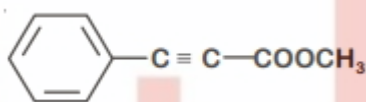
Total Marks : 200

Chemistry

* SECTION - A

[160]

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



- (A) 8,5 (B) 7,5 (C) 8,6 (D) 7,6
2. Hybridization of 1 and 2 carbon atoms in $\overset{1}{CH_2} = \overset{2}{C} = CH_2$
- (A) sp, sp (B) sp^2, sp^2 (C) sp^2, sp (D) sp^3, sp^2
3. Toluene has
- (A) 6σ and 3π bond (B) 9σ and 3π bond (C) 9σ and 6π bond (D) 15σ and 3π bond
4. Which is an acidic hydrocarbon
- (A) $CH_3CH_2CH_2CH_3$ (B) $CH_3C \equiv CCH_3$
(C) $CH_3C \equiv CH$ (D) $CH_2 = CH - CH = CH_2$
5. Number of unhybridised orbitals in vinyl acetylene are
- (A) 2 (B) 3 (C) 4 (D) 6
6. Which of the following alkanes contains primary, secondary, tertiary and quaternary carbon atoms together
- (A) $(CH_3)_3CH$ (B) $(C_2H_5)_3CH$
(C) $(CH_3)_3CCH_2CH(CH_3)_2$ (D) $(CH_3)_4C$
7. Alicyclic compounds are
- (A) Aromatic (B) Aliphatic (C) Heterocyclic (D) Aliphatic cyclic
8. The correct match between items of List –I and List –II is

List –I	List –II
(A) Phenelzine	(p) Pyrimidine

(B) Chloroxylenol	(q) Furan
(C) Uracil	(r) Hydrazine
(D) Ranitidine	(s) Phenol

(A) (A) – (s); (B) – (r); (C) – (q); (D) – (p)

(B) (A) – (r); (B) – (s); (C) – (p); (D) – (q)

(C) (A) – (r); (B) – (s); (C) – (q); (D) – (p)

(D) (A) – (s); (B) – (r); (C) – (p); (D) – (q)

9. $Cl - C - Cl$ angle in 1, 1, 2, 2- tetrachloroethene and tetrachloromethane respectively are about

(A) 120° and 109.5° (B) 90° and 109.5° (C) 109.5° and 90° (D) 109.5° and 120°

10. Which of the following hybridization is known as trigonal hybridization

(A) sp^3 (B) sp (C) sp^2 (D) dsp^2

11. The numbers of sigma (σ) bonds in 1-butene is

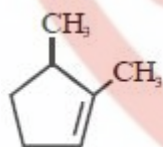
(A) 8 (B) 10 (C) 11 (D) 12

12. In which bond angle is the highest

(A) sp^3 (B) sp^2 (C) sp (D) sp^3d

13. Which of the following IUPAC name is incorrect

(A)



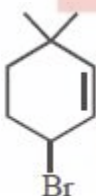
1,5-Dimethylcyclopentene

(B)



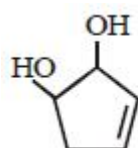
3,4-Dimethylpent-1-en-3-ol

(C)



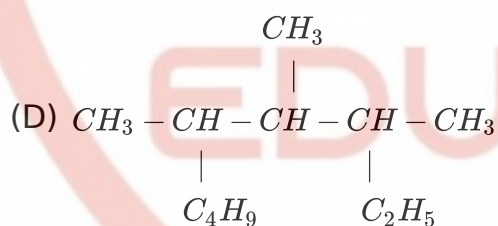
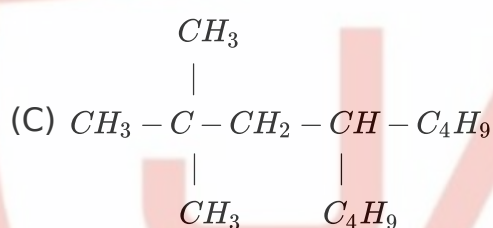
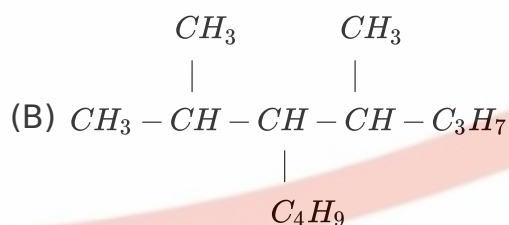
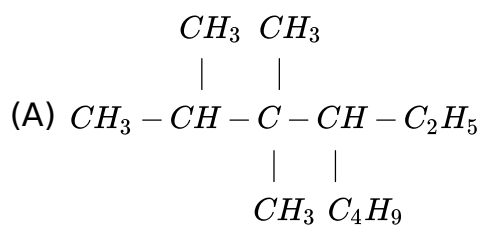
6-Bromo-3,3-dimethylcyclohexene

(D)



5-Hydroxycyclopent-2-en-1-ol

14. Identify the structure of 5 – (2,2– dimethyl propyl) nonane



15. The *IUPAC* name of neopentane is

(A) 2,2 dimethylpropane

(B) 2– methyl propane

(C) 2,2 dimethylbutane

(D) 2–methylbutane

16. *IUPAC* name of $\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_2 - \underset{\text{CN}}{\text{CH}} - \text{CH}_3$

(A) 2–cyno, 3–methyl, hexane

(B) 3–methyl, 5–cyano hexane

(C) 4 methyl, 2– cyano pentane

(D) 2–cyno, 4–methylhexane

17. *IUPAC* name of CH_3CHO is

(A) Acetaldehyde

(B) Methyl aldehyde

(C) Ethanol

(D) Ethanal

18. Which of the following is correct *IUPAC* name

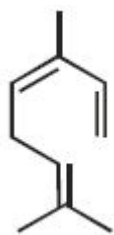
(A) 4 – (1,1– dimethyl ethyl) –2– methyl pentane

(B) 1– aminobutan –1– one

(C) 2– ethyl –3– methyl pentane

(D) 3– ethyl –2– methyl pentane

19. IUPAC name of the following compound will be



- (A) 3,4– Dimethyl octa –1,3,6– triene
 (B) 3,7– Dimethyl octa –1,3,6– triene
 (C) 2,6– Dimethyl octa –2,5,7– triene
 (D) 2,6– Dimethyl octa –1,5,7– triene

20. The IUPAC name of $CH_3CH_2CHCH_2CH_2CH_3$ is



- (A) 4– methylhexane
 (B) 3– methylhexane
 (C) 2– propylbutane
 (D) 2– ethylpentane

21. The IUPAC name of the compound $CH_3 - CH - CH_2 - CH_2 - OH$ is



- (A) 1– pentanol
 (B) Pentanol
 (C) 2– methyl –4– butanol
 (D) 3– methyl –1– butanol

22. IUPAC name of $CH_3 - CH = CH - COOH$

- (A) 2– butenoic acid
 (B) 1– butenoic acid
 (C) β - butenoic acid
 (D) 1– carboxy –1– propene

23. IUPAC name of the compound $CH_3 - CH - CH_2 - CH - CH_3$ is.....



- (A) 4–methyl pentene-2–ol
 (B) 2–methyl pentanol–4
 (C) 4,4–dimethyl butan–2–ol
 (D) 4–methyl pentane–2–ol

24.



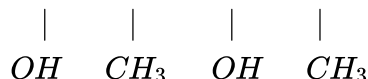
The IUPAC name of $CH_3 - CH - CH_3$ is

- (A) 2–chloropropane
 (B) Chloropropane
 (C) 1–chloropropane
 (D) 2–chlorobutane

25.



The IUPAC name of $CH_3 - CH - CH - CH - C - CH_3$ is



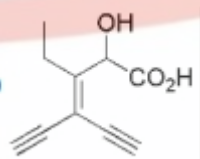
- (A) 3,5,5– Trimethylhexane –2,4– diol
 (B) 2,2,4– Tri methylhexane –3,5– diol
 (C) 1,2,4,4– Tetramethylpentane –1,3– diol
 (D) 2,2,4,5– Tetramethylpentane –3,5– diol

26. *IUPAC* name of $CH_2 = CH - CH(CH_3)_2$ is

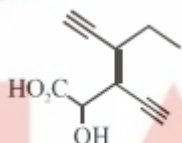
- (A) 1,1– dimethyl –2– propene
 (B) 3– methyl –1– butene
 (C) 2– vinyl propane
 (D) 1– isopropyl ethylene

27. Which one of the following structures has the *IUPAC* name 3-ethynyl – 2-hydroxy-4-methylhex-3-en-5-ynoic acid?

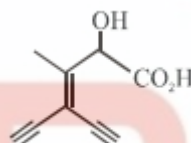
(A)



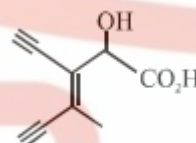
(B)



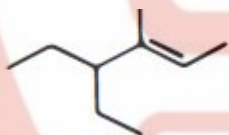
(C)



(D)



28. The *IUPAC* name of the following compound is



- (A) 3– ethyl –4– methylhex –4– ene
 (B) 4,4– diethyl –3– methylbut –2– ene
 (C) 4– methyl –3– ethylhex –4– ene
 (D) 4– ethyl –3–methylhex –2– ene

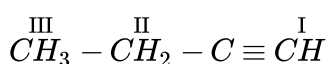
29. The *IUPAC* name of the compound having the formula $Cl_3C.CH_2CHO$ is

- (A) 3,3,3– trichloropropanal
 (B) 1,1,1– trichloropropanal
 (C) 2,2,2– trichloropropanal
 (D) Chloral

30. The *IUPAC* name of crotonaldehyde is

- (A) Prop –2– ene –1– al
 (B) Propenal
 (C) But –2– ene –1– al
 (D) Butenal

31. Which C–atoms is the most electronegative in this structure



- (A) I
 (B) II

(C) *III*

(D) All are equal electronegative

32. *IUPAC* name of $H_3C-CH-CH_2-CH-CH_2Cl$ is



(A) 1-chloro-4-methyl-2-hexanal

(B) 1-chloro-4-ethyl-2-pentanol

(C) 1-chloro-4-methyl-2-hexanol

(D) 1-chloro-2-hydroxy-4-methyl hexane

33.

IUPAC name of the following compound $\text{CH}_3 - \text{CH}_2 - \overset{\text{O}}{\underset{\text{||}}{\text{CH}}} - \text{CH}_2$ is

(A) 1,2- epoxy butane

(B) Ethyl methyl ether

(C) Keto pentanone

(D) None of these

34. The *IUPAC* name of β -ethoxy $-\alpha$ -hydroxy propionic acid (trivial name) is :

(A) 1,2-dihydroxy-1-oxo-3-ethoxy propane

(B) 1-carboxy-2-ethoxy ethanol

(C) 3-Ethoxy-2-hydroxy propanoic acid

(D) All above

35. Which of the following is the first member of ester homologous series?

(A) Ethyl ethanoate

(B) Methyl ethanoate

(C) Methyl methanoate

(D) Ethyl methanoate

36. The *IUPAC* name of the compound $Br(Cl)Cl \cdot CF_3$ is :

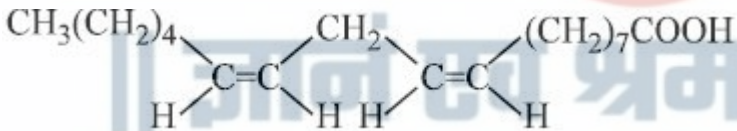
(A) 2-bromo-2-chloro-2-iodo 1,1,1- trifluoroethane

(B) 1,1,1- trifluoro -2- bromo -2- chloro -2- iodo ethane

(C) 2-bromo-2-chloro-1,1,1-trifluoro-2-iodoethane

(D) 1-bromo-1-chloro-1-iodo-2,2,2-trifluoro ethane

37. The *IUPAC* name of given is :



(A) cis-cis-9,12- octadecandienoic acid

(B) cis-trans-9,12- octadecan dienoic acid

(C) 9,10- octa decadienoic acid

(D) 9,14– octa decadienoic acid

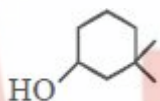
38. The IUPAC name of $\begin{array}{c} CH_3 \\ | \\ CH_2 = C - COOCH_3 \end{array}$ is

- (A) Methyl -2- methylprop -1- en-3- oate
 (B) 2- Methoxycarb onylpropene
 (C) 2- Methoxycarbonylprop -2- ene
 (D) Methyl -2- methylprop -2- enoate

39. The IUPAC name of $\begin{array}{c} OH \\ | \\ CH_3 - CH - COOH \end{array}$ is

- (A) 2- Hydroxypropanoic acid (B) 1- Hydroxypropanoic acid
 (C) 1- Hydroxyethane carboxylic acid (D) 1- Hydroxyethanoic acid

40. The IUPAC name of the given compound is



- (A) 1,1- dimethyl -3- cyclohexanol
 (B) 1,1- dimethyl -3- hydroxy cyclohexane
 (C) 3,3- dimethyl -1- cyclohexanol
 (D) 3,3- dimethyl -1- hydroxy cyclohexane

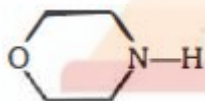
*** SECTION - B**

[40]

41. How many carbons are in simplest alkyne having two side chains?

42. Number of sp hybridised carbon atom in the given compound is :
 $CH_2 = CH - C \equiv C - CH_2 - CN$

43. The total number of lone pair of electrons in the given molecule is



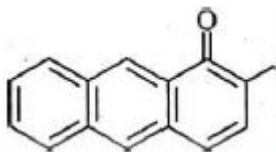
44. How many 1° carbon atom will be present in a simplest hydrocarbon having two 3° and one 2° carbon atom ?

45. The total number of 'sigma' and 'Pi' bonds in 2-oxohex-4-ynoic acid is.

46. The total number of 'Sigma' and Pi bonds in 2-formylhex-4-enoic acid is_____.

47. The number of sigma bonds in $\begin{array}{c} H_3C - C = CH - C \equiv C - H \\ | \\ H \end{array}$ is

48. The number of sp^2 hybrid orbitals in a molecule of benzene is
49. Number of π electrons in cyclobutadienyl anion $(C_4H_4)^{-2}$ is
50. The number of $C - C$ sigma bonds in the compound



JARS
EDUCATION



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