

Q.1) Which one is the wrong statement?

- *a) saturated hydrocarbons are called alkenes
- b) open – chain compounds are called aliphatic
- c) unsaturated hydrocarbons contain double or triple bond (bonds) between carbon atoms
- d) aromatic compounds possess a characteristic aroma

Q.2) Which is the correct statement?

- a) the prefix are written before the name of the compound
- b) the suffix are written after the name of the compound
- c) the IUPAC name of a compound is always written as one word
- *d) all the above are correct

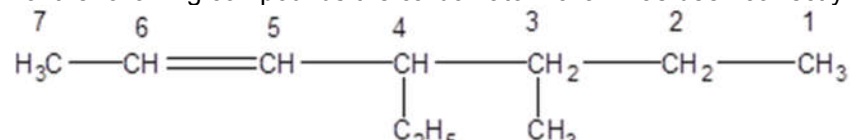
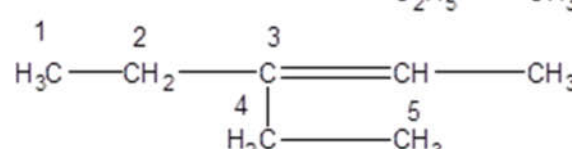
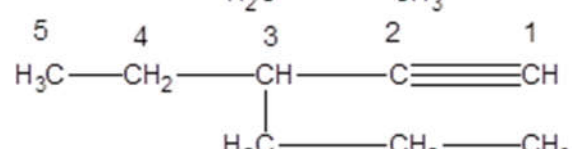
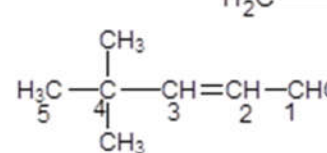
Q.3) Which of the following statement is wrong?

- a) the IUPAC name of alkenes ends with suffix –ene
- b) the IUPAC name of alkynes ends with suffix –yne
- *c) the substituents get lower number in comparison to functional group
- d) the IUPAC name of acid amides is alkanamide

Q.4) The correct decreasing order of preference of functional groups during the IUPAC nomenclature of poly functional compounds is

- *a) —COOH , —CHO , —OH , —NH_2
- b) —NH_2 , —OH , —CHO , —COOH
- c) —COOH , —OH , —NH_2 , —CHO
- d) —COOH , —NH_2 , —CHO , —OH

Q.5) In which of the following compounds the carbon atom chain has been correctly numbered

- a) 
- b) 
- c) 
- *d) 

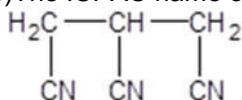
Q.6) IUPAC name of CH_3CHO is:

- a) Acetaldehyde
- *b) Ethanal
- c) Methyl aldehyde
- d) Formalin

Q.7) IUPAC name of $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CH}_2\text{COOH}$ is:

- *a) 4 – hydroxy pentanoic acid
- b) 1 – carboxy – 3 – butanol
- c) 1 – carboxy – 4 – butanol
- d) 4 – carboxy – 2 – butanol

Q.8) The IUPAC name of the following compound is:

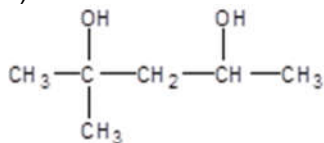


- a) 1, 2, 3 – tricyano propane
- b) Propane tricarbylamine
- *c) 1, 2, 3 – propane tricarbonitrile
- d) 3 – cyanopropane – 1, 5 – dinitrile

Q.9) The structure of 4 – methyl – 2 – penten – 1 – ol is:

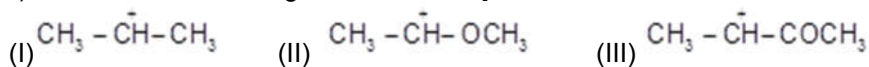
- a) $(\text{CH}_3)_2\text{C} = \text{CHCH}_2\text{CH}_2\text{OH}$
- *b) $(\text{CH}_3)_2\text{CHCH} = \text{CHCH}_2\text{OH}$
- c) $\text{CH}_3\text{CH}_2\text{CH} = \text{CHCH}_2\text{OH}$
- d) $\text{CH}_3\text{CHOHCH} = \text{C}(\text{CH}_3)_2$

Q.10) The IUPAC name for the following compound is:



- a) 1, 1 – dimethyl – 1, 3 – butandiol
- *b) 2 – methyl – 2, 4 – pentandiol
- c) 4 – methyl – 2, 4 – pentandiol
- d) 1, 3, 3 – trimethyl – 1, 3 – propandiol

Q.11) What is the decreasing order of stability of the ions?

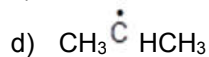
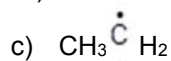
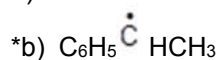
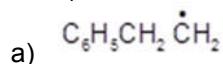


- a) I > II > III
- b) II > III > I
- c) III > I > II
- *d) II > I > III

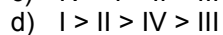
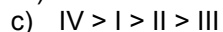
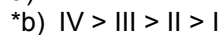
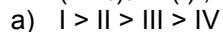
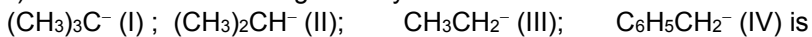
Q.12) The C — H bond distance is longest in

- a) C_2H_2
- b) C_2H_4
- *c) C_2H_6
- d) $\text{C}_2\text{H}_2\text{Br}_2$

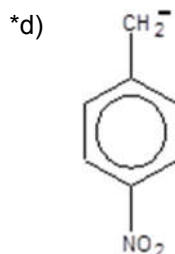
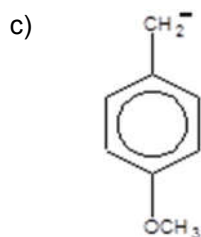
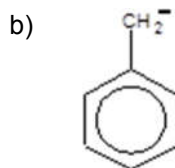
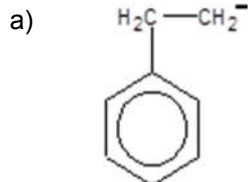
Q.13) The most stable free radical among the following



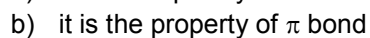
Q.14) The order of decreasing stability of the carbanions



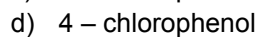
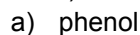
Q.15) The most stable carbanion among the following is



Q.16) Which statement is correct for electromeric effect?



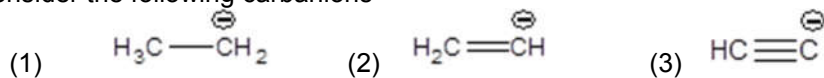
Q.17) Which one of the following is most acidic?



Q.18) Which one of the following is most – acidic?

- a) 2 – propanol
- b) 2 – methyl – 2 – propanol
- c) ethanol
- *d) methanol

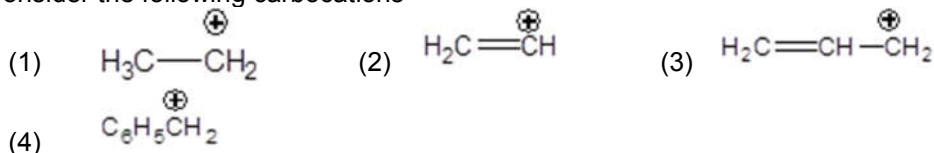
Q.19) Consider the following carbanions



Correct order of stability of these carbanions in decreasing order is

- a) $1 > 2 > 3$
- b) $2 > 1 > 3$
- *c) $3 > 2 > 1$
- d) $3 > 1 > 2$

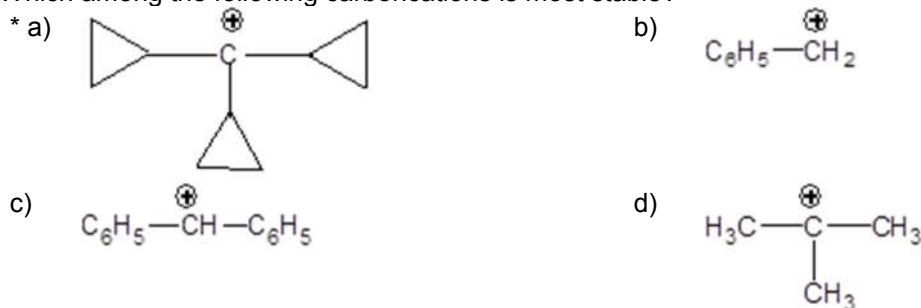
Q.20) Consider the following carbocations



Stability of these carbocation in decreasing order is

- *a) $4 > 3 > 1 > 2$
- b) $4 > 3 > 2 > 1$
- c) $3 > 4 > 2 > 1$
- d) $3 > 4 > 1 > 2$

Q.21) Which among the following carbonocations is most stable?



Q.22) Arrange basicity of the given compounds in decreasing order



- *a) $1 > 2 > 3$
- b) $1 > 3 > 2$
- c) $3 > 2 > 1$
- d) $2 > 3 > 1$

Q.23) Arrange the following groups in order of decreasing deactivating effect

(1) NO_2

(2) SO_3H

(3) CF_3

(4) CHO

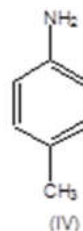
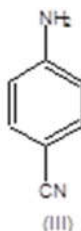
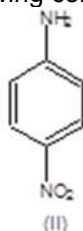
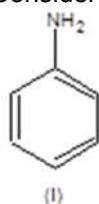
*a) $1 > 3 > 2 > 4$

b) $1 > 2 > 3 > 4$

c) $1 > 4 > 3 > 2$

d) $4 > 3 > 2 > 1$

Q.24) Consider the following compounds



Arrange these compounds in decreasing order of their basicity

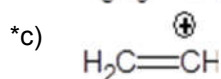
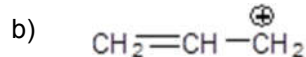
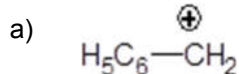
a) $1 > 2 > 3 > 4$

b) $2 > 3 > 1 > 4$

*c) $4 > 1 > 3 > 2$

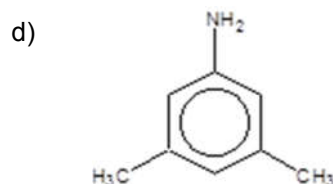
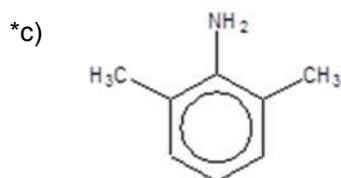
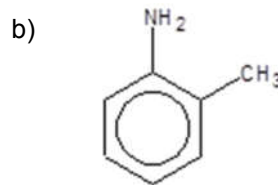
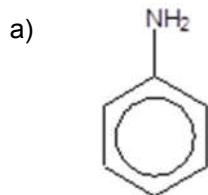
d) $4 > 1 > 2 > 3$

Q.25) Which one of the following is vinyl carbocation



d) All of these

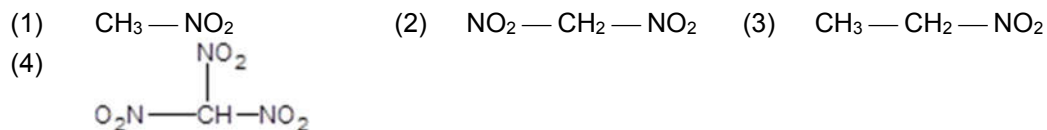
Q.26) Which one of the following is most basic?



Q.27) Which of these species are electrophiles?

- a) FeCl_3
- b) BF_3
- c) AlCl_3
- *d) all of these

Q.28) Arrange given compounds in order of decreasing acidity

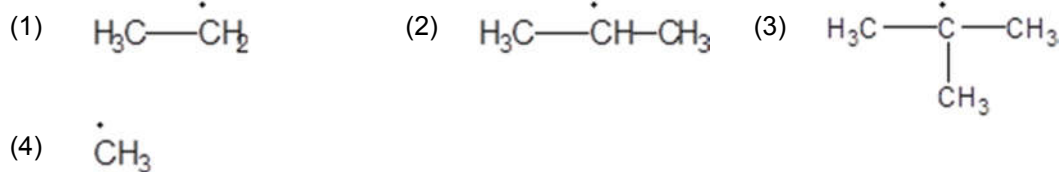


- *a) $4 > 2 > 1 > 3$
- b) $4 > 2 > 3 > 1$
- c) $3 > 1 > 2 > 4$
- d) $3 > 1 > 4 > 2$

Q.29) Which one of the following has the highest nucleophilicity?

- a) F^-
- b) OH^-
- *c) CH_3^-
- d) NH_2^-

Q.30) The stability of given free radical in decreasing order is



- a) $3 > 4 > 1 > 2$
- b) $1 > 2 > 3 > 4$
- c) $3 > 2 > 4 > 1$
- *d) $3 > 2 > 1 > 4$