

Multiple choice questions. Encircle the correct answer.

- (i) The state of hybridization of carbon atom in methane is: (SGD, 2011; GUJ, 2013, 2015; LHR, 2013, 2015; MLN, 2016, 2019; SHW, 2015, 2016; FSD, 2019; BHP, 2019)
(a) sp^3 (b) sp^2 (c) sp (d) dsp^2
- (ii) In t-butyl alcohol, the tertiary carbon is bonded to: (GUJ, 2014; SGD, 2014, 2015; LHR, 2016)
(a) two hydrogen atoms (b) three hydrogen atoms
(c) one hydrogen atom (d) no hydrogen atom
- (iii) Which set of hybrid orbitals has planar triangular shape. (LHR, 2013; DGK, 2015, 2016; SGD, 2014)
(a) sp^3 (b) sp (c) sp^2 (d) dsp^2
- (iv) The chemist who synthesized urea from ammonium cyanate was: (SGD, 2013; FSD, 2014; AJK, 2017; GUJ, 2019)
(a) Berzelius (b) Kolbe (c) Wohler (d) Lavoisier
- (v) Linear shape is associated with which set of hybrid orbitals? (GUJ, 2009, 2014, 2015; DGK, 2014; SGD, 2015, 2017; MLN, 2015, 2016; DGK, 2015, 2019; BHP, 2017)
(a) sp (b) sp^2 (c) sp^3 (d) dsp^2
- (vi) A double bond consists of: (FSD, 2013; GUJ, 2016; AJK, 2015, 2019)
(a) two sigma bonds (b) one sigma and one pi bond
(c) one sigma and two pi bonds (d) two pi bonds
- (vii) Ethers show the phenomenon of; (SGD, 2013, 2014, 2019; FSD, 2016; MLN, 2017; LHR, 2017; DGK, 2017, 2018; BHP, 2017)
(a) position isomerism (b) functional group isomerism
(c) metamerism (d) cis-trans isomerism
- (viii) Select from the following the one, which is alcohol (RWP, 2015; LHR, 2015; MLN, 2019)
(a) CH_3-CH_2-OH (b) CH_3-O-CH_3 (c) CH_3COOH (d) CH_3-CH_2-Br