

<b>CHEMISTRY-12</b>	<b>Chapter#07(Complete) Test: C-2</b>		
	Name:	Class:	ID:
Date: / /	<b>Marks Total: 40</b>	<b>Marks Obtained:</b>	
Time Allowed: 75 Min.			

Maximum Marks: 08 **(OBJECTIVE TYPE)** Time Allowed: 15 Min.

**NOTE:** Tick The Correct Option:

- In t-butyl alcohol, the tertiary carbon is bonded to:
  - Two hydrogen atoms
  - Three hydrogen atoms
  - One hydrogen atom
  - No hydrogen atom
- Which set of hybrid orbitals has planar triangular shape?
  - $sp^3$
  - $sp$
  - $sp^2$
  - $dsp^2$
- $CO_2H$  is a functional group:
  - Alkoxy
  - Carbonyl
  - Carboxyl
  - hydroxyl
- Carbon atom of carboxyl group is:
  - $sp$  hybridized
  - $sp^2$  hybridized
  - $sp^3$  hybridized
  - $sp^2d$  hybridized
- Number of possible chain isomers of an alkane  $C_5H_{12}$  are:
  - 2
  - 3
  - 4
  - 5
- The compounds containing cyano group are called:
  - Alkane cyanides
  - Alkyl nitriles
  - Alkane nitriles
  - All
- The functional group isomer of diethyl ketone is:
  - Pentanal
  - Pentanol
  - 2-Pentanone
  - 3-Pentanone
- Tautomerism arises due to the shifting of \_\_\_\_\_ between two atoms within the same molecule.
  - Electron
  - Proton
  - Functional group
  - Free radical

Maximum Marks: 32 **(SUBJECTIVE TYPE)** Time Allowed: 60 Min.

### SECTION-I

- Q.2: Give brief answers to the following questions: (20)
- What is vital force theory? How was it rejected by Fredrick Wohler?
  - What is petroleum? How was it formed?
  - Differentiate between catalytic and steam cracking.
  - What are aromatic compounds? Give two examples.
  - What is meant by a functional group? Give the general formula of functional groups of Mercaptans and Nitriles.
  - A tetravalent carbon atom is more stable than a divalent carbon atom. Explain.
  - What do you mean by the sigma frame work of ethene molecule? Draw its shape.
  - Draw the shape of HCHO molecule, showing overlapping of its orbitals.
  - Define functional group isomerism. Give examples.
  - Write down structural forms of two possible isomers of  $C_4H_{10}$ .

### SECTION-II

**NOTE:** Attempt All Questions: (12)

- Explain reforming of petroleum with the help of suitable example.
- What is  $sp$  hybridization? Explain the structure of acetylene on the basis of  $sp$  hybridization.
- Define isomerism. Explain geometric isomerism with examples.