

V. P. & R. P. T. P. Science College
B.Sc. (Fifth Semester)
Thursday 3rd October, 2013
Subject code: US05CICV01 (Organic Chemistry)
Industrial Chemistry(Vocational)

Time: 03:30 am to 05:00 pm

Total Marks: 30

Q-1 Select right option from given in the following questions. (06)

- I A Free radical is _____
(a) Neutral in character (b) Paramagnetic (c) Shortly lived (d) All the above
- II Homolytic cleavage of a bond generates _____
(a) Free radical (b) Carbonium ion (c) Carbenes (d) Carbanions
- III Aldehyde having _____ undergo aldol condensation.
(a) α -hydrogen (b) β -hydrogen (c) δ -hydrogen (d) γ -hydrogen
- IV In Meerwein – Ponndorf – Verley reduction _____ is used as catalyst.
(a) $(\text{Me}_2\text{CHO})_3\text{Al}$ (b) LiAlH_4 (c) AlCl_3 (d) NBS
- V Aluminium isopropoxide is an important _____ reagent.
(a) Reducing (b) Brominating (c) Oxidizing (d) Methylating
- VI Selenium dioxide is an important _____ reagent.
(a) Oxidizing (b) Methylating (c) Reducing (d) Brominating

Q-2 Answer any three of the following: (06)

- I Define term Hemolytic fission.
- II What are electrophils? Give an example.
- III Write Principal of Diels- Alder Reaction.
- IV Write Principal of Meerwein – Ponndorf - Verley reduction
- V Discuss the preparation of Aluminium isopropoxide.
- VI Illustrate with examples specific uses of N-Bromosuccinimide.



Q-3 How are attacking reagents classified? Explain with examples. (06)

OR

Q-3 Explain the following reaction with one example each (06)

(A) Elimination reaction

(B) Addition reaction

Q-4 Discuss the "type of Rearrangements (06)

OR

Q-4 Describe the mechanism and applications of Aldol Condensation (06)

Q-5 Write short note on aluminum isopropoxide (06)

OR

Q-5 Write s note on osmium tetroxide (06)