V.P. & R. P. T. P. SCIENCE COLLEGE
INDUSTRIAL CHEMISTRY
B. Sc. - Semester – III
COURSE NO: US03CICH22 – ORGANIC CHEMISTRY
Date & Day: 7th October 2019
TIME: 03:00 to 04:15pm TOTAL MARKS – 25

Q.1 Answer the following MCQs (05)

1. Sodium phenoxide reacts with CO_2 at 125°C under 5 atm pressure to give salicylic acid. This is called.....
   A. Kolbe's reaction
   B. Perkins reaction
   C. Wurtz reaction
   D. HVZ reaction
2. The compound most capable of hydrogen bonding is...
   A. CH3OCH2CH3
   B. CH3CH2CH2CH3
   C. Phenol
   D. CH2CH3-S-S-CH2CH3
3. A sample of pure amine molecules is found to posses no intermolecular H-bonding the amine is most likely:
   A. Primary amine
   B. Secondary amine
   C. Tertiary amine
   D. All of the them
4. Furan reacts with ammonia in the presence of alumina at 400°C to give
   A. Pyridine
   B. Furfural
   C. Pyrrole
   D. Furoic acid
5. Anthracene undergoes electrophilic substitution reactions mainly at.....
   A. C-1
   B. C-2
   C. C-9
   D. C-1 and C-2

Q.2 Write a note on the addition of Grignard reagent in carbonyl compound for preparation of alcohol. (05)

OR

Q.2 Discuss the structure, nomenclature and physical properties of phenol. (05)

Q.3 Discuss the "Malonic ester synthesis of carboxylic acid". (05)

OR

Q.3Write a note on Aldol and cross-aldol condensation. (05)

Q.4 Discuss the structure of Pyrrole. (05)

OR

Q.4 Describe about the position of electrophilic substitution in pyridine & justify attacking position on the basis of resonating structure. (05)

OR

Q.5 Electrophilic aromatic substitution reaction takes place predominantly at α-position in Naphthalene. Explain. (05)

OR

Q.5 Write down the Haworth synthesis of Anthracene and Phenathrene. (05)