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Registration no:

Total Number of Pages: 2 (Two)

<http://www.bputonline.com>**B. PHARM**
15PH204

2nd Semester Regular / Back Examination 2016-17
ORGANIC CHEMISTRY- I

Time: 3 Hours

Max Marks: 100

Q.P CODE: Z864

**Answer Section 'A' which is compulsory and any Four from Section 'B'.
The figures in the right hand margin indicate marks.**

Section A**Q1 Answer the following questions: (2x10)**

- a) Which of the following hydrocarbons has the shortest C-C bond length?
1) $\text{CH}_2=\text{CH}_2$ 2) CH_3CH_3 3) C_2H_4 4) Benzene
- b) What is the hybridization of the C-atom in ethane?
1) Pure p 2) sp 3) sp^3 4) sp^2
- c) Which of the following is a nucleophile ?
1) AlCl_3 (2) H_3O^+ (3) BF_3 (4) CN^-
- d) What is the IUPAC name of the following molecule? HCOOOCH
1) Formic Anhydride . 2) Ehtanoic Anhydride
3) Methanoic Anhydride 4) None of Above
- e) The Glacial Acetic acid contain Acetic Acid
1) 90% 2) 87% 3) 99.5% 4) 96.5%
- f) The process of converting alkyl halides into alcohols involves _____?
1) addition reaction 2) substitution reaction
3) dehydrohalogenation reaction 4) rearrangement reaction
- g) Which chemical test to distinguish between the following pairs of compounds.
Methylamine and dimethylamine .
1) lucas test. 2) Hinsberg Test. 3) Dichromate Test. 4) None of the above
- h) CH_3CONH_2 can be converted into CH_3NH_2 by _____.?
1) Oxidation. 2) Ozonolysis. 3) Homolysis 4) Hofmann's Degradation
- i) What product produce through hemolytic fission
1) Carbonium Ions. 2) Carbanions 3) Free Radicals. 4) None of the above
- j) Which of the following reagents can be used to convert CH_3CHO to CH_3CONH_4 ?
1) Amonical solution of Silver Oxide 2) Pd/BaSO_4
3) Pyridinium chlorochromate. 4) $\text{Liq. NH}_3/\text{Ethanol}$

Q2 Answer the following questions: (2x10)

- a) What is Azeotropic Mixture?
- b) Write the structure of CFC?
- c) Define London Forces?
- d) What is Iodoform Reaction?
- e) Why carbon is tetravalent?
- f) What is Rosenmund Reduction?

- g) Why alpha hydrogen atoms of aldehyde are acidic?
- h) What is the difference between Gem-Vic Dihalide?
- i) Why Primary alkyl amine is more Basic than Ammonia?
- j) Write the two Structures having active methylene group?

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Section B (Answer any four)

- Q3** a) Write five general methods of preparations of alkenes and explain their Chemical properties. (10)
- b) Discuss Bayer's strain theory with suitable examples. (5)
- Q4** a) Discuss Inductive and Mesomeric effect with suitable examples. (10)
- b) Define and classify different types of hydrogen bond. (5)
- Q5** a) Discuss the mechanism of SN_1 and SN_2 reaction with suitable example. (10)
- b) Write notes on Bohr's atomic Structure. (5)
- Q6** a) Write synthetic applications of Diethyl Malonate. (10)
- b) Explain Aldol Condensation & Cannizaro reaction? (5)
- Q7** a) Outline the general methods of preparation & Chemical Reaction of alcohol. (10)
- b) How to differentiate primary, secondary and tertiary alcohols. (5)
- Q8** a) What is Diels alder's reaction, Wurtz reaction and Free-radical Substitution reaction? Explain Markovnikove rule with suitable examples. (10)
- b) Outline the general methods of preparation of Ether. (5)
- Q9** a) Write a note on: Quantum number. (10)
- b) Explain the conformational analysis of cyclohexane. (5)