

**F.Y.B.PHARM. SEMESTER-I (2011 COURSE) : WINTER -
2017**
SUBJECT: PHARMACEUTICAL CHEMISTRY-II (ORGANIC)

Day: Friday
Date: 10/11/2017

Time: 10.00 AM TO 01.00 PM
Max. Marks: 80

W-2017-3807

N.B.:

- 1) **Q. No. 1 and Q. No.5 are COMPULSORY.** Out of the remaining attempt any **TWO** questions from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION-I

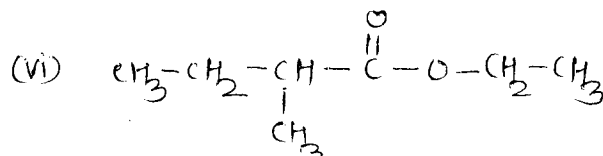
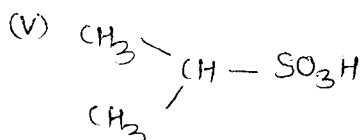
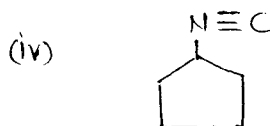
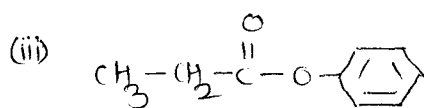
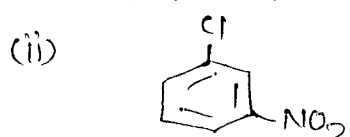
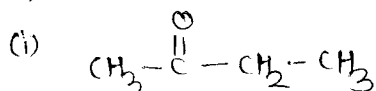
Q.1 Answer any **FIVE** of the following: **(10)**

- a) What is I- strain?
- b) The μ value of carbon tetrachloride is zero. Explain.
- c) Why synthesis of 1,2,3 tri-tert-butylbenzene is very difficult?
- d) N,N-dimethyl-*o*-toluidine is more basic than aniline. Explain.
- e) What is Bond dissociation energy?
- f) What is SP Hybridisation?
- g) What is Dipole-dipole interaction?

Q.2 Define Resonance. What is Lewis dash-dot method of writing resonating structures. Give contributing structures in resonance. **(15)**

Q.3 a) Differentiate between S_N1 and S_N2 reaction. **(10)**

b) Give IUPAC names of the following structures. (Any **FIVE**) **(05)**



Q.4 Write short notes on any **THREE** of the following: **(15)**

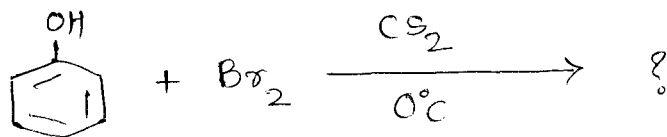
- a) Inductive Effect
- b) Melting Point
- c) Hyperconjugation
- d) S_Ni Reaction

P. T. O.

SECTION-II

Q.5 Answer any **FIVE** of the following: **(10)**

a) Predict the product.



b) What product is obtained when benzene is treated with cyclopropane?

c) Differentiate the following into Electrophiles and Nucleophiles.



d) What happens when chloroform is treated with alcoholic KOH?

e) What is Dimerisation reaction?

f) How the rate of the reaction is determined as per Collision Theory?

g) Give potential energy diagram for one step exothermic reaction.

Q.6 a) What are Reaction Intermediates? Give method of generation and reactions of Carbocation, π -complex and Benzyne. **(15)**

Q.7 a) Define Stereoisomerism. Explain Optical Isomerism in detail. **(10)**

b) Write a note on Aromatic Electrophilic Substitution reaction. **(05)**

Q.8 Write short notes on any **THREE** of the following: **(15)**

a) Nitration Reaction

b) Carbon radicals

c) Sulphonation reactions

d) Geometric Isomerism

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