Ref. No. : Ex//Pharm/T/223//2017 (OLD)

B.Pharm. 2nd Yr 2nd Sem. Exam.-2017 OLD

Subject:PHARM CHEMISTRY-VII (Organic) Time : 3 Hours Full Marks : 100

Group A

Answer AT LEAST THREE questions from this group. Answers to all part of a question should be at the same place of the answer-script and in the same order as they appear in the question paper.

1. Discuss the theory of IR spectroscopy. [20

2. Write a note on optical isomerism with examples. [20

3. Write notes on:
   (i) Optical rotator dispersion
   (ii) FLUORESCENCE AND PHOSPHORESCENCE
   (iii) Induced polarizability [5+7+8

4. Write a note on different kind of electromagnetic radiations. Discuss the theory of UV-Visible spectroscopy. [10+10

5. Write notes on:
   (i) E- and Z-
   (ii) D- and L-
   (iii) Molar refractivity
   (iv) Chemical shift [4 x 5

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B. PHARMACEUTICAL TECHNOLOGY SECOND YEAR SECOND SEMESTER (Old)-2017

PHARMACEUTICAL CHEMISTRY - VII Time: 3 Hours Full marks - 100

Answer FIVE questions taking at least two from each group.

GROUP - B

Q 6 a) Write in details about nucleophilic aromatic displacement reactions of aryl halides. 10

b) How do you prepare the following compounds ? (give reactions)

i) Acryl nitrile from acetylene.

ii) Commercial method of allyl alcohol synthesis.

iii) Preparation of acraldehyde from allyl alcohol.

iv) Propargyl alcohol from 1,2,3-tribromopropane.

v) Allyl acrylate from acraldehyde.

2 x 5 = 10

Q 7. Write about following name reactions.

i) Michael condensation ii) Borodine - Hunsdiecker reaction iii) Meerwein-Pondorff-Verley reduction iv) Stephen's method for aldehyde v) Sandmeyer reaction vi) Finkelstein reaction vii) Wurtz reaction. viii) Reimer - Tiemann reaction ix) Gattermann - Koch reaction x) Cannizzaro reaction 2 x 10 = 20

Q 8. a) Show formation of product when allyl cyanide is hydrolysed in presence of alkali.

b) Give one method of synthesis for crotonic acid

c) Methyl methacrylate synthesis from acetone.

d) Industrial synthesis of acrylic acid.

e) How do you prepare dimedone from mesityl oxide.

f) Explain why allyl halides add with haloacid to form a mixture of 1,3 and 1,2 dibromopropane.

g) Crotyl alcohol produces a mixture of bromides when treated with HBr.

h) Show the reaction of acraldehyde in presence of alkali.

i) What will be the product when acetone is treated with A) HCl B) NaOH.

j) What product will be formed by mesityl oxide in presence of magnesium amalgam.

2 x 10 = 20