Total No. of Printed Pages:3

SUBJECT CODE NO:- B-2002
FACULTY OF SCIENCE
B.Sc. T.Y (Sem-VI) Examination March/April 2018
Chemistry Paper –XVII
Organic Chemistry

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.

N.B i) Attempt all questions.
ii) Figures to the right indicate full marks.

Q.1 (A) What are carbohydrates? Explain the Pyranose ring structure of Glucose. 10

(B) What are heterocyclic compounds? Explain nitration and Sulphonation of Thiophene with Mechanism. 10

OR

(A) How will you convert: 10
a) Glucose into Fructose
b) Glucose into Mannose

(B) (i) Give the Molecular orbital Picture of Pyridine 05
(ii) Explain with Mechanism amination of Pyridine. 05

Q.2 (A) What are Synthetic dyes? Give the synthesis of Alizarin & indigo. 12

(B) What are synthetic Polymers? Give the synthesis of: 08
i) Polyvinyl chloride
ii) Polystyrene

OR

Write short notes on (any four) 20
1. Molecular orbital Picture of Pyrrole
2. Give the synthesis of Nylon – 66
3. Maltose
4. Properties of ideal drug
5. Synthesis of Malachite green
6. Synthesis of Chloromycetin

Q.3 Multiple choice questions. 10

1. Carbohydrates that yields only glucose on hydrolysis is _____
a) Lactose
b) Sucrose
c) Maltose
d) Fructose

2. Lactose on hydrolysis yields_____
   a) Galactose
   b) Glucose
   c) Fructose
   d) Maltose

3. Pyridine reacts with a mixture of KNO_3/H_2SO_4 at 300℃ it gives_____
   a) 1- Nitropyridine
   b) 2- Nitropyridine
   c) 3- Nitropyridine
   d) 4- Nitropyridine

4. The product of Skraup's synthesis is _____
   a) Quinoline
   b) Isoquinoline
   c) Indole
   d) Piperidine

5. Neoprene is a Polymer of following Monomer_____
   a) Isoprene
   b) Isobutene
   c) Isopentene
   d) Chloroprene

6. Congo red is _____
   a) Nitro dye
   b) Nitroso dye
   c) Azo dye
   d) Tri aryl Methane dye

7. Which of the following is an auxochrome:
   a) $-N=O$
   b) $-NO_2$
   c) $-N=N-$
   d) $-OH$

8. Saturated hydrocarbons gives the transitions.
   a) $\pi \rightarrow \pi^*$
   b) $n \rightarrow \pi^*$
   c) $n \rightarrow \sigma^*$
   d) $\sigma \rightarrow \sigma^*$

9. Which of the following reagent will react Pyrrole to form 2- formyl Pyrrole
   a) HCOOH
   b) $CHCl_3/KOH$
   c) H_2O_2
   d) Acetic anhydride

10. Which of the following is an example of condensation Polymer_____
   a. Nylon- 66
   b. Teflon
   c. PVC
   d. Orlon