



KC-8049

B. E. II (Sem. III) (Chemical) Examination

November / December – 2012

Organic Chemistry & Unit Process

(New Course)

Time : 3 Hours]

[Total Marks : 100

Instruction :

नीचे दृष्टावेव निशान्तीवाणी विगतो उत्तरवडी पर अवश्य लभवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
B. E. II (Sem. III) (Chemical)

Name of the Subject :
Organic Chemistry & Unit Process (New)

Subject Code No. : 8 0 4 9 Section No. (1, 2,.....): Nil

Seat No. :

Student's Signature

1 (a) Fill in the blanks: (10)

- (1) Petroleum is a mixture of mostly _____ and _____ hydrocarbons.
- (2) _____ and _____ are the two types of isomerism.
- (3) Dyes are classified in two ways according to _____ and _____.
- (4) Friedel-Crafts alkylation of Benzene is carried out by using _____ in presence of _____ as catalyst.
- (5) Nucleophilic Substitution Reaction may be divided into _____ and _____ reactions.

(b) Define the following: (10)

- | | |
|-----------------------|--------------------------|
| (1) Chromophore | (6) Cetane number |
| (2) Homolytic fission | (7) Isomers |
| (3) Knocking | (8) Functional isomerism |
| (4) Addition reaction | (9) Halogenation |
| (5) Auxochrome | (10) Polymers |

2 Attempt any three: (15)

- (1) Explain in detail the classification of dyes.
- (2) Explain preparation, properties and uses of Ethyl Alcohol.
- (3) Write a note on methods of prevention of knocking.
- (4) Describe Sulphonation and Nitration of Benzene.

3 Attempt any five: (15)

- (1) Explain geometrical isomerism with example of Tartaric acid.
- (2) Write preparation and uses of Formaldehyde.
- (3) Write preparation and uses of Acetic acid.
- (4) Write a note on electromeric effect.
- (5) Describe cracking of petroleum.
- (6) Explain pigments and its application.

4 (a) Short answer question: (10)

- (1) Prepare any lower to higher aldose.
- (2) What do you mean by Heterocyclic compound?
- (3) What are detergents?
- (4) What is nucleic acid?
- (5) Differentiate between Glucose and Fructose.

(b) Short answer question: (10)

- (1) Write name and structure of two six member ring compound.
- (2) Define nucleophile and electrophile.
- (3) Write uses of Naphthalene.
- (4) What are synthetic polymers?
- (5) Give only classification of carbohydrates.

5 Attempt any three: (15)

- (1) Give examples of polynuclear aromatic compound and explain sulphonation of Naphthalene.
- (2) Briefly describe the manufacture of soap.
- (3) Draw the structure of D(+)-glucose. State its general properties and uses.
- (4) Write a note on Wolf-Kishner reduction reaction.

6 Attempt any five: (15)

- (1) Write the conversion of aldose to ketose.
 - (2) Write any three chemical reactions of Benzene.
 - (3) Distinguish between natural and synthetic polymers.
 - (4) Write mechanism of Perkin reaction.
 - (5) Write in brief properties and uses of polymers.
 - (6) Write applications of Cannizzaro reaction.
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