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RM-6589

B. E. - II (Sem. IV) (Textile Processing) Examination

May / June – 2010

Chemistry of Intermediates & Dyes

Time : **3** Hours] [Total Marks : **100**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **B. E. - 2 (Sem. 4) (Textile Processing)**

Name of the Subject :

☛ **Chemistry of Intermediates & Dyes**

☛ Subject Code No. : **6 5 8 9** ☛ Section No. (1, 2,.....) : **1&2**

Seat No. :

Student's Signature

(2) Answers to the two sections must be written in separate answer books.
(3) Figures to the right indicate full marks.
(4) Tie two sections separately.

SECTION-I

1 (a) Answer the following objective questions : **10**

(1) Dye = _____ + _____.
(2) Name two coupling components.
(3) What does letter 'L' indicate in the dye name ?
(4) What is pigment ?
(5) Give the two names of reputed dye manufacturers.
(6) Chlorobenzene can be converted to phenol by _____ process.
(7) Define diazotization.
(8) How does FBA function ?
(9) Reactive dyes form _____ bond with the cotton fabric.
(10) Give the statement of quinonoid theory.

(b) What is the difference between dye and color ? Give a brief outline of physics of color. **10**

2 (a) Describe in brief various postulates of resonance theory. **10**

(b) Describe the chemical constitutions of dye. **5**

OR

2 Describe application, ,properties and synthesis of following classes of dyes : 15
(1) Disperse dye (2) Metal complex dyes (3) Reactive dyes.

3 Write short notes on any three of the following : 15
(a) Oxidation colours
(b) Solublised vat dye
(c) Non-textile uses of dyes
(d) Mineral colours.

SECTION-II

4 (a) Answer the following objective qeustions : 10
(1) Carbolic oil is obtained at _____ temperature range.
(2) -CHO group diverts the incoming substituent to meta position. True or False. Justify.
(3) State at least two methods by which hydroxyl group can be introduced in aromatic nucleus.
(4) Show structure of H - acid.
(5) Give chemical name of Koch acid.
(6) Give conversion of naphthalene of phthalic anhydride.
(7) Enlist various unit processes.
(8) Heavy oils mainly contain _____ in it.
(9) Which intrating agents are mainly used in nitration ?
(10) Nitration reaction is carried out at high temperature True or False. Justify.

(b) What is sulphonation ? Explain its mechanism and describe sulphonation of naphthalene along with chemical reaction. 10

5 (a) Define nitration ? Explain its mechanism and describe nitration of benzene and toluene. 10

(b) Dow and cumene process. 5

OR

5 Why the dyes were known as "coal tar dyes" ? Discuss the destructive distillation of coal tar along with different products. 15

6 Write short notes on any three of the following : 15
(a) Oxidation
(b) Zinc and sulphide reaction
(c) Amino napthol sulphonic acids
(d) Desulphonation.