



SF-6589

**B. E. - II (Sem. IV) (Textile Processing) Examination**  
**May / June - 2011**  
**Chemistry of Intermediates & Dyes**

Time : 3 Hours]

[Total Marks : 100

**Instructions :**

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. E. - 2 (SEM. 4) (TEXTILE PROCESSING)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="CHEMISTRY OF INTERMEDIATES &amp; DYES"/>	<input type="text"/>
Subject Code No. : <input type="text" value="6"/> <input type="text" value="5"/> <input type="text" value="8"/> <input type="text" value="9"/>	<input type="text" value="Student's Signature"/>
Section No. (1, 2,.....) : <input type="text" value="NIL"/>	

(2) Figures to the right indicate full marks.

- 1 (a) Answer the following objective questions : 10
- (i) How does FBA function ?
  - (ii) Define colour.
  - (iii) Classify auxochromes.
  - (iv) Dye = \_\_\_\_\_ + \_\_\_\_\_
  - (v) Name two coupling components.
  - (vi) What is antibonding orbitals ?
  - (vii) What is bathochromic effect ?
  - (viii) Reactive dyes form hydrogen bond with the fibres. True or False. Justify.
  - (ix) The intensity of the absorption is \_\_\_\_\_ due to the loss of symmetry of the molecule.
  - (x) What does letter 'L' indicate in the dye name ?
- (b) Explain in detail molecular orbital theory. 10
- 2 (a) Describe all the aspects involved in the nomenclature of dyes. 10
- (b) Differentiate dyes and pigments. 5

**OR**

- 2 Give application, properties and synthesis of the following : 15
- (i) Vat dyes
  - (ii) Chrome dyes
  - (iii) Reactive dyes.

- 3 Write short notes on any three : 15
- (a) Nomenclature of dyes
  - (b) Eco-friendly consideration of dyes
  - (c) Non textile uses of dyes
  - (d) Vinyl sulphone dye.
- 4 (a) Answer the following objective questions : 10
- (i) Give chemical name of Koch acid.
  - (ii) Give conversion of naphthalene to phthalic anhydride.
  - (iii) Enlist various unit processes.
  - (iv) Heavy oils mainly contain \_\_\_\_\_ in it.
  - (v) Which nitrating agents are mainly used in nitration ?
  - (vi) Nitration reaction is carried out at high temperature. True or False. Justify.
  - (vii) Give structure of J-acid.
  - (viii) Give structure of H-acid.
  - (ix) Nitrobenzene on reduction gives \_\_\_\_\_
  - (x) -CHO group directs the incoming group to \_\_\_\_\_ position in an aromatic ring.
- (b) Describe the various classes of organic compounds used as intermediates for dyes. 10
- 5 (a) Define nitration. Explain its mechanism and describe nitration of benzene and toluene. 10
- (b) Zinc and Sulphide reaction. 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 : 15
- (a) Amino naphthol sulphonic acids
  - (b) Desulphonation
  - (c) Light oil and middle oil
  - (d) Reduction reactions.