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RM-7183

B. E. - III (Sem. VI) (Textile Processing) Examination

May / June – 2010

Technology of Dyeing - II

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. - 3 (Sem. 6) (Textile Processing)**

Name of the Subject :

☛ **Technology of Dyeing - 2**

☛ Subject Code No. : **7 1 8 3** ☛ Section No. (1, 2,.....) : **1&2**

Seat No. :

Student's Signature

(2) Answer 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) Choose the correct alternative : **5**

(i) Super micro fibers have following dimension.
- (a) 1 dpf
- (b) 0.5 – 1.0 dpf
- (c) 0.2 – 0.5 dpf
- (d) None of the above.

(ii) CDPET is dyed at
- (a) 120°C
- (b) 130°C
- (c) 115°C
- (d) 100°C.

(iii) PP is dyed by :
- (a) Dope dyeing method
- (b) Rope dyeing method
- (c) Supercritical CO_2 method
- (d) HTHP dyeing method.

(iv) In blend, which blend is more popular :
(a) P/W
(b) P/C
(c) P/C/V
(d) P/W/V.

(v) Procinyl dye is a combination of :
(a) Acid + reactive
(b) Disperse + reactive
(c) Disperse + direct
(d) Acid + disperse.

(b) Answer in brief : **5**
(i) What is meant by AEG content in nylon ?
(ii) What is barriness ?
(iii) What is meant by over dyeing in nylon ?
(iv) Give some trade names of Disperse dyes.
(v) Which monomer is added to convert PET to CDPET ?

(c) Explain processing of : **10**
(a) Texturised polyester
(b) Microfilament polyester.

2 Explain principle, construction and working of any two dyeing machines : **15**
(1) Fully flooded jet dyeing machine
(2) Cop and cheese dyeing machine
(3) Jiggers.

OR

2 State the principle of dyeing machines. Describe with neat sketch, working of partial flooded jet dyeing machine. **15**

3 Write short notes on any three of the following : **15**
(a) Polypropylene dyeing
(b) Disperse / Reactive system of dyeing of P/C blend
(c) Lavelling agents for Nylon.
(d) Hussong longclose dyeing machine.

SECTION - II

4 (a) Answer the following objective questions : **10**
(i) Give some trade names of cationic dyes.
(ii) Define Tg.
(iii) Reactive dyes are always applied in alkaline medium on any substrate. True or false.
(iv) What is the function of salt in dyeing of wool with acid dye in neutral conditions ?

(v) Give the pH range for milling dyes.
(vi) 1:2 metal complex dyes is dyed at pH _____.
(vii) Give Tg of polyester and acrylic fibers.
(viii) Name some of the dyes applicable on silk.
(ix) Acid mordant dyes are also referred to as _____.
(x) Which pH is set for dyeing of acrylic with cationic dyes ?

(b) Discuss in detail application of cationic dyes on acrylic fibres. **10**

5 (a) Describe dyeing of silk with basic dyes in detail. **10**

(b) Describe dyeing of wool with acid dye. **5**

OR

5 Discuss dyeing of nylon fibre with acid, disperse and procinyl dyes. Give advantages and limitations of these dyes on nylon. **15**

6 Write short notes on any three of the following : **15**

(a) Metal complex dyes
(b) Classification of acid dyes
(c) Effect of salt on dyeing of wool with acid dye
(d) Dyeing of wool with procilan dyes.