B. Tech.

(SEM. IV) EXAMINATION, 2006-07

TEXTILE CHEMISTRY - II

Time : 3 Hours] [Total Marks : 100

Notes : (1) Attempt all questions.
(2) All questions carry equal marks.
(3) Be precise in your answer.

1 Attempt any two of the following:

(a) Describe the factors responsible for excellent fastness properties of Vat dyes. State various chromophores of vat dyes. What is vat acid?

(b) Describe the process of Package dyeing with Vat dyes in Exhaust method with suitable recipe and important controlling parameters.

(c) What are the drawbacks of Sulphur Dyes? How Sulphur dyes are applied to cotton? What are the precautions generally taken during dyeing with Sulphur Dyes?
2 Attempt any **two** of the following:

(a) State the reactive groups present in Procoin and Remazol, HE-Dyes and ME-Dyes. Describe the fixation mechanism of Remazol dyes with cellulosics. What are the steps taken to remove hydrolised dyes? **4+4+2**

(b) Why high temperature is applied to dye polyester? How does Carrier help in polyester dyeing? Describe the dyeing of polyester by Carrier method. **3+5+4**

(c) What are ME-brand dyes for cotton? Describe the dyeing of ME-dyes in Pad-batch method with a suitable recipe and precautions to be taken. **3+7**

3 Attempt any **two** of the following:

(a) How colour is quantified with respect to Value, Hue and Chroma? What do you mean by metamerism? Discuss it with examples. **5+5**

(b) How spectrophotometer can be used for quality control of dyed goods? What do you mean by 555 sort? **7+3**

(c) What is K/S vs Concentration curve? Describe how it is used fo predict recipe of dyed sample. **3+7**
4 Attempt any two of the following:

(a) Describe the printing of cotton fabric by Colour Discharge style to get coloured effect on dyed ground giving suitable recipe for paste formation and function of its ingredients. 10

(b) State the pigment printing process by rotary screen printing machine. What are the advantages of Rotary screen printing over Roller printing? 10

(c) What are the objects of Curing? Describe the working of a continuous Ager with controlling parameters. 3+7

5 Attempt any two of the following:

(a) Discuss the effect of various parameters of Mercerisation on quality of fabric. Describe the process of Yarn mercerization. 5+5

(b) How does wrinkle-free finish act on cotton to prevent it from creasing? Discuss various formaldehyde free anti-crease finishing agents which can successfully be used on cotton goods. 5+5

(c) What do you mean by LOI? Describe the process of imparting permanent FR finish on cotton. What are the precautions to be taken during this application. 2+6+2