* S E - 6 8 8 3 / 1 0 0 *

SE-6883

B. E. III (Sem. V) (TP) Examination

April / May – 2011

Analytical Textile Chemistry - I

(Old Scheme)

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 - 5) (TP)**

Name of the Subject :

☛ **Analytical Textile Chemistry - 1**

☛ Subject Code No. : **6 8 8 3** ☛ Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

(2) Figures to the right indicate full marks.

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

(1) Colourimetric determinations are carried out at λ max. true or false ?

(2) KCNS is used to determine _____ content of water.

(3) Colour of water is measured in ppm, true or false ?

(4) Name two sequestering agents.

(5) Soft waters generally have nentral pH, true or false ?

(6) Ash content indicates _____

(7) Iodine value indicates _____ content of oil.

(8) Nitrogen content is measured by _____ method.

(9) Spectrophotometry follows _____ and _____ laws.

(10) What does the acid number indicate ?

(b) What is meant by hard water ? Classify hardness in water. Give the method for determination of total of hardness water. **10**

2 Explain the terms COD and BOD. Give the method for determination of D.O. and BOD of an effluent. **15**

OR

2 Discuss, conductometric and potentiometric titrations and their applications in analytical textile field. **15**

3 Write short notes : (any **three**) **15**

(a) Silica content determination

(b) Iron content and its effect in processing

(c) % purity of H_2O_2 and NaOCl

(d) Brooke field viscometer

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

(1) Rain water is natural distilled water. true or false ?

(2) BOD is always greater then COD. true or false ?

(3) BOD 3 means ?

(4) _____ reagent used for chloride content in water.

(5) Turbidity of water is measured in terms of _____ .

(6) "Boiling removes total hardness of water" Correct the sentence.

(7) Flash point and fire point can be measured by ____ cup and _____ cup method.

(8) What is meant by bomb wastings ?

(9) A grease sample must be evaluated for ____ number.

(10) What is meant by standard electrode petential ?

(b) Describe working of Brookfield viscometer and Redwood viscometer. **10**

5 Describe the methods for testing of lubricants for consistency, aniline point, cloud point, power point, flash point and fire point. **15**

OR

5 Explain the method for determination of calorific value of coal using bomb-calorimeter with neat sketch and calculations. **15**

6 Write short notes : (any **three**) **15**

(a) TLC

(b) Principle of spectroscopy and its applications

(c) Solids in water and their determination

(d) Determination of COD.
