

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 2289795

Roll No.

--	--	--	--	--	--	--	--	--	--

**B.TECH.**

**Regular Theory Examination (Odd Sem-V), 2016-17**

**TEXTILE CHEMISTRY - II**

*Time : 3 Hours*

*Max. Marks : 100*

**SECTION - A**

**1. Attempt all parts. All parts carry equal marks. Write answer of each part in short (10×2=20)**

- a) State purposes of mercerization.
- b) State the relation between  $T_w$  and specific gravity of liquid.
- c) What is local mercerization?
- d) How colours are formed by coupling reaction?
- e) Classify Napthols.
- f) What are mixed bifunctional reactive dyes?
- g) State chromophores of sulphur dyes.
- h) Name the class and hue of the dye; Indanthrene Yellow GCN
- i) What are carriers of dyeing?

- j) Why creases appear on cotton fabric after washing?

**SECTION - B**

**Note :** Attempt any five questions from this section  
(5×10=50)

2. Describe how mercerization is carried out in chainless-padless mercerization machine.
3. How Rapid fast colours are applied onto cotton fabrics? Describe fastness properties of azoic colours.
4. Describe the application of it by leuco-vat method.
5. How sulphur dyes are made soluble? Describe dyeing process of it on cotton fabric.
6. Describe the dyeing process of vat dyes in CDR machine.
7. What are Indigosol dyes? Describe the application and properties of such dyes.
8. Describe the application of Reactive dyes in Pad-Batch method.
9. What are the purposes of calendering? Describe the 5-Bowl Calendering process of fabrics.

**SECTION - C**

**Note :** Attempt any two Questions from this section  
(2×15=30)

10. Cotton fabric has to be dyed in continuous dyeing range machine with addition of 1.5% Remazol Blue 3R and 0.5% Remazol yellow GN on weight of fabric. Calculate the concentration of Blue 3R and Yellow GN in grams per liter required in the padding trough. Assume expression 65% and sp.gr of pad liquor is 1.04
11. What are the preparatory processes required for package dyeing machine? What should be the package yarn density for dyeing? Describe the dyeing cycle of this type of machine of reactive dye application on cotton yarn.
12. What are the various chemicals used for wrinkle free finish on cotton fabric? Describe the mechanism of wrinkle free finish. What are the drawbacks of Urea Formaldehyde finishes? How could you overcome these drawbacks?