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Total Number of Pages: 02

B.Tech.
PETX5404

7th Semester Regular/Back Examination 2017-18
Process Control In Textile Chemical Processing

BRANCH: TEXTILE

Time: 3 Hours

Max Marks: 70

Q.CODE : B465

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

- Q1 Answer the following questions: (2 x 10)**
- a) Desizing efficiency should be between _____% and _____ test is used for checking effective desizing .
 - b) In H₂O₂ bleaching process, _____ is used as stabilizer and EDTA is used as _____.
 - c) Name 2 tests for Scouring.
 - d) If reflectance more, absorbance is _____, K/S is _____.
 - e) What is °Tw Scale, It is used in _____ process?
 - f) Full form of ASTM is _____ and AATCC is _____.
 - g) Wash fastness scale is from _____, Light fastness scale is from _____.
 - h) What are BOD & COD ?
 - i) +ve b* indicates increased _____, -ve b* indicates increased _____.
 - j) Why Free formaldehyde content of the garment is important?
- Q2**
- a) What are the disadvantages of unsinged fabric ? How could you obtain better singed fabrics? (5)
 - b) Discuss the process control measures in desizing of cotton though enzymatic root. (5)
- Q3**
- a) Discuss various water quality norms in textile wet processing. (5)
 - b) Discuss the common processing faults in H₂O₂ bleaching. What kind of preventive measure should you take ? (5)
- Q4** Define a process , Briefly discuss the process control objectives and measures for various textile wet processes ? (10)
- Q5**
- a) Describe the physical significance of CIE XYZ and CIE L*a*b* system. (5)
 - b) i) What do you infer from the following? (5)
Samples and batch with following CIE L*a*b* values
Sample : 38 1.5 -1.5
Batch : 38.5 2 -2
Calculate the DE .

- Q6** a) How can you improve the fastness properties of direct dyes? (5)
b) Discuss the process control measures to ensure proper scouring. (5)

- Q7** a) What are easy care finishes? Discuss their application process and control. (5)
b) What is Beer-lamberts law? Discuss its fundamental application through spectroscopy to check dyes. (5)

Q8 Write short notes on Any Two: (5 x 2)

a) Match the table :

COD	p) Copper Number
Free Formaldehyde	q) KI solution
Bleaching	r) $^{\circ}\text{Tw}$
Mercerization	s) Absorbancy
Desizing	t) Water quality

- b) TDS and TSS
c) Barium Activity number
d) DP(durable Press) rating & Free formaldehyde