	Utech
Name:	
Roll No. :	To Annual O'S amenday and Explored
Invigilator's Signature :	

CS/M.TECH(MCP)/SEM-1/MCP-101/2011-12

2011

THEORY AND PRACTICES OF COLOURATION

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP - A (Multiple Choice Type Questions)

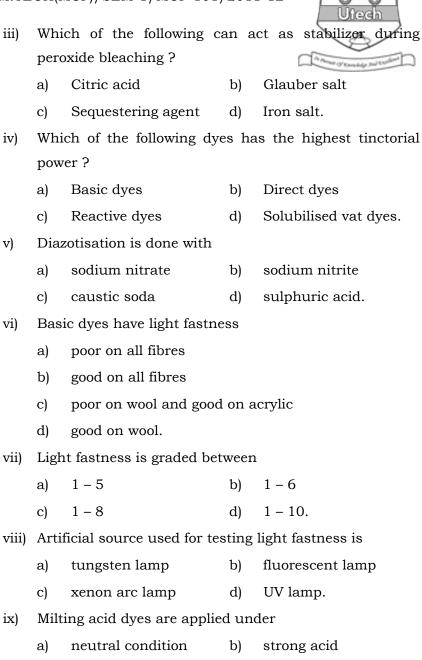
- 1. Choose the correct alternatives for the following : $10 \times 1 = 10$
 - i) H_2O_2 bleaching is carried out at pH and temperature as
 - a) 10.5 and room temperature
 - b) 10·5 and 85°C 90°C
 - c) 7 and 85°C 90°C
 - d) 12 and 85°C 90°C.
 - ii) Wool scouring is done at a temperature as
 - a) room temperature
- b) 50° C

c) 80° C

d) high temperature.

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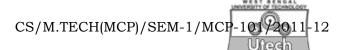


d)

weak acid

c)

alkaline condition.



- x) Soda ash is used in dying with direct dyes in order to
 - a) maintain alkalinity
 - b) improve exhaustion
 - c) remove hardness of water
 - d) fit dye with fibre.

GROUP - B

(Short Answer Type Questions)

Answer any *three* of the following

 $3 \times 5 = 15$

 $3 \times 15 = 45$

- 2. What is colour index? Describe the system briefly.
- 3. Describe various desizing methods.

8.

a)

- 4. Describe chromophore, auxochrome and solubilising groups of dyes.
- 5. Describe the methods of whitening textile materials.
- 6. Describe mass colouration methods briefly.
- 7. Write a short note on high fixation reactive dyes.

GROUP - C

(Long Answer Type Questions)

Answer any three of the following.

What chemical reactions occur during scouring of

- cotton materials? 5
 b) Describe various modern methods of scouring and
- bleaching of cotton fabrics.
- a) What are the reasons of increasing popularity of reactive dyes?
 - b) Name various types of reactive dyes. 3
 - c) Describe various methods of dying cotton fabrics with reactive dyes.

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10.	a)	Name various machines used for dying of textile fabric	s.
		To Alexand (by Karan ledge Start Excellent)	3
	b)	Compare their merits and demerits.	4
	c)	Describe a winch or jet dying machine.	8
11.	a)	Classify acid dyes used for wool dying.	2
	b)	Describe each class briefly.	5
	c)	Describe the methods of application of each class of ac	id
		dyes on wool briefly.	8
12.	a)	Compare various classes of dyes suitable for dying	of
		cotton materials.	7
b)		Describe principle and method of application of vat dy	es
		on cotton materials.	8

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