

**Q5.** Attempt any *two* questions from the following : 10x2=20

- (a) What do you mean by dye-bath yellowing of wool? How could this be prevented? Describe IR treatment of wool with the process parameters.
- (b) What do you mean by LOI? Describe the FR treatment of wool with the process parameters.
- (c) What is photo bleaching of wool? How could this be prevented? Describe the process sequence of effluent treatment of wool scour liquor.
- \_\_\_\_\_

**Printed Pages : 4**



**EACT601**

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

**PAPER ID : 164651**

Roll No.

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

**BTECH**  
**(SEM. VI) THEORY EXAM. 2014-15**  
**CHEMICAL PROCESSING OF CARPET**

Time : 3 Hours]

[Total Marks : 100

**Note :** Attempt the questions as indicated. All questions carry equal marks. Be precise in your answer.

**Q1.** Attempt any *two* questions from the following : 10x2=20

- (a) What are the methods used to scour wool fibre? Describe the scouring method most widely used in woolen industry.

- (b) Describe the composition of wool grease. What are the methods used for grease recovery from scour liquor? Describe one of them.
- (c) In what ways the heat energy can be recovered in wool scouring plants? Describe one of them.

**Q2.** Attempt any *two* questions from the following : 10x2=20

- (a) Describe the fixation mechanisms of 1:1 and 1:2 metal complex dyes. Give the dyeing procedure of strongly polar 1:2 metal complex dyes.
- (b) What are chrome dyes? Compare the various application methods of these dyes.
- (c) Classify acid dyes. Describe the properties and application of these on woolen materials.

**Q3.** Attempt any *two* questions from the following : 10x2=20

- (a) What are the ingredients of natural latex paste used in carpet backing? Describe the functions of each ingredient. State the method for determination of DRC of latex.

- (b) How do you get transparent coating on the backside of carpets? Describe the application of such backing onto carpets and the function of each ingredient.
- (c) Compare the synthetic and natural latex used in carpet backing. Describe the composition and application of synthetic latex on handmade carpets.

**Q4.** Attempt any *two* questions from the following : 10x2=20

- (a) Why are the handmade carpets given chemical wash before mechanical finishing? Describe the sequence of operations carried out in chemical washing of carpet.
- (b) What do you mean by eco-friendly washing of carpets? Describe the steps taken to meet the criteria of REACH.
- (c) Compare the chemical-wash processes of hand-knotted woolen carpets, 100% silk carpets and 100% art-silk carpets.