Fourth Semester
Textile Technology
Scheme July 2008
WEAVING PREPARATORY (402)

Time : Three Hours ***Maximum Marks : 100***

Note : Attempt total six questions. Question No. **1** is compulsory. From the remaining questions attempt any five.

1. State whether the following statements are true or false (T/F). 2 each

   a) Coconut oil is a deliquescent substance

   b) Singleton automatic thread stop motion is used on a beam warping machine.

   c) Sulphuric acid is used to prevent mildew on cloth.

   d) Swinging blade type of slub catcher are more sensitive than the fixed blade type.

   e) Ribbon formation can be avoided by the use of non - intersecting grooves on drums.

2. a) What are the objects of winding? Show the passage of yarn on a high speed winding machine and describe the function of various important parts in the passage. 14

   b) What is heavy size? Explain. 4

3. Explain why warp yarns require sizing before weaving? What are the various ingredients used in size mixing for cotton yarn? State the purpose of each ingredient. 18

4. What are the function of slub catches and tensioners as used on a winding machines? Write a short note on different types of slub catchers and tensioners used on winding machine. 18

5. a) Calculate the time required to wind 400 lbs of 12^s cotton yarn on 10 drums. The actual production drum per minute is 560 yards. 9

   b) A warper beam contains 12600 yards of warp wound on it. The number of ends in the warp is 420 and the weight of the full beam is 361 lbs. If the weight of the empty beam is 51 lbs, calculate the beam count. 9

6. a) The weight of sized yarn on a beam was found to be 82.5 lbs. The beam contains 1050 yards of warp, whose count before sizing was 50^s cotton. If the number of ends in the warp is 3000, then calculate the weight of size on the yarn and the count of the sized yarn. 10

   b) 63 yards of 25^s unsized yarn is found to weigh 42 grains after sizing. What is the percentage of size put on it. 8

7. a) What are the objects of warping? Describe the working of a high speed beam warping machine with a neat sketch. 12

   b) Compare manual drawing in process with modern mechanical drawing is process. 6

8. Write short notes on (any three) 6 each

   a) Beam pressing motion

   b) Pure and medium size

   c) Pirn winding machine

   d) PIV drives