



Department of Textile Engineering
Jashore University of Science and Technology
4th Year 1st Semester B.Sc. (Engg.) Final Examination-2021
Course Title: Fabric Manufacturing Engineering-III
Course Code: TE 4103

Time: 3 Hours

Total Marks: 72

N.B. - Answer any six from the following questions. Maintain sequence in answering each question. Figures shown in the right margin indicate full marks.

1. a) Illustrate the weaving mechanism of lappet fabric. [5]
b) Describe the wire loom principle. [4]
c) Calculate the of weaver's load from below tables: [3]
Assume total number of looms=50

Serial no.	Occurrence (X)	Number of Occurrence per Loom per hour (Y)	Time for each Repair in minutes (Z)
1	Warp break/hour/loom	3	0.5
2	Weft break/hour/loom	2	0.4
3	Trimming/hour/loom	3	0.3
4	Skewering /hour/loom	3	0.3
5	Shuttle trap/hour/loom	0.25	0.1
6	Patrol/hour/loom	4	0.25

2. a) Explain the weaver's load and their responsibilities. [4]
b) What factors need to be considered before calculating the weaver's load? [4]
c) Costing is a very important parameter to get an order from buyer. Now describe the Factors influencing cloth costing. [4]
3. a) Explain the working principle of sliding carrier braiding machine with sketch [5]
b) Illustrate the mechanism of the needle loom. [5]
c) Differentiate between lappet and swivel weaving. [2]
4. a) What are the Causes of warp and weft breakage in weaving? [4]
b) Define braiding and what Properties changes due to braiding? [4]
c) In a modern braiding machine, circular braid is produced for electric wire covering where no. of ends is 40, plies per end are 10, yarn count 30S, weight of electric wire per meter is 100 gm and braid contraction 45%. Calculate GLM (gram per linear meter) for that particular braid. If the production rate is 10m/min. then calculate required yarn per day. [4]

5.
 - a) What is weft-knitted jacquard? Classify the weft-knitted jacquard. [4]
 - b) Where and why the butt length and butt position of the needle are important? [3]
 - c) Discuss the working principle of the electronic jacquard machine. [5]

6.
 - a) Explain the transfer action of rib loop transfer stitches. [5]
 - b) Draw the perylene stitch and fancy lacing stitches. [3]
 - c) Show the notation diagram of below jacquard fabric where, A, B and C represents different color. (Fig. 6.1). [4]

8- Face wales

Face Pattern rows								
IV	C	B	B	A	A	B	B	C
III	C	A	C	B	B	C	A	C
II	A	C	B	C	C	B	C	A
I	A	A	C	B	B	C	A	A

Fig: 6.1

7. Write the short note on the followings: (4×3 = 12) [12]
 - a) Miss lapping
 - b) Co-We-Knit
 - c) Loop transfer stitches
 - d) Fall plate patterning

8.
 - a) Show the notation diagram of an “alternate accordion fabric”. [4]
 - b) What are the four main types of transfer stitches? [2]
 - c) Illustrate the full-width weft insertion knitting cycle. [6]
