Code No: 155GN **R18**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year I Semester Examinations, August/September - 2024
FABRIC MANUFACTURE - II
(Textile Engineering)

Time: 3 Hours **Max. Marks: 75**

Note: i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

1.a)	Define loom motions.	[2]
b)	Explain cloth wind-up system.	[3]
c)	Summarize the cam.	[2]
d)	Explain about method of pick finding.	[3]
e)	Define jacquard shedding.	[2]
f)	Write the outline of CBJ.	[3]
g)	List out the types of jacquard weaving.	[2]
h)	Explain the harness tip ups.	[3]
i)	Recall the preparations of box motion.	[2]
j)	Explain the shuttle thread eye cutter.	[3]

PART – B

(50 Marks)

2.a) Explain the loom temples and its need.
b) Elaborate the take-up motion be adjusted to accommodate different types of fabric. [5+5]

OR

3.a) Construct the types of auxiliary motions are involved in knitting machines, and how do they enhance the knitting process?
b) Discuss the primary function of the let-off motion in a weaving loom. [5+5]

4.a) Analyze the principal of operation of a dobby shedding mechanism in weaving.
b) Write the important of safety features are incorporated into a keighly machine to protect operators during testing. [5+5]

OR

5.a) Construct the advantages and limitations of using a paper dobby compare to other type of dobbies.
b) Explain the pegging process affect the efficiency and speed of fabric production. [5+5]

6.a) Predict the advantages and disadvantages of using a jacquard shedding mechanism in industrial textile production.

b) List out the type of fabrics and patterns are best suited for production using jacquard shedding. [5+5]

OR

7.a) Build the advantages of using a jacquard shedding mechanism over traditional shedding methods in specialized fabric production.

b) Elaborate DLSL machines manage to lift two warp threads simultaneously for more intricate fabric designs compared to traditional jacquard looms. [5+5]

8.a) Explain the role of jacquard weaving card repeaters play in customizing fabric designs.

b) Evaluate the method to increase figuring capacity. [5+5]

OR

9.a) Discuss the lacing affect the aesthetic appearance and texture of finished fabric.

b) Explain the process of setting up harness tie-up for a jacquard loom. [5+5]

10.a) Justify the main components of a box motion mechanism in weaving loom.

b) List out the types of sensors and control system are typically used in modern automatic looms to ensure quality and efficiency. [5+5]

OR

11.a) Explain the advantages and disadvantages of using box motion in fabric manufacturing compared to other motion system.

b) Analyze the main difference between shuttle and shutteless automatic looms in fabric manufacturing. [5+5]

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