

- Q.21 What are the advantages of modern picking mechanism?
- Q.22 Explain the problems faced in water-jet weaving machines.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)
- Q.23 Explain in detail the mechanism of weft insertion in rapier looms.
- Q.24 Discuss the importance of unconventional weaving machines in modern textile production.
- Q.25 Describe the working principle, advantages, and disadvantages of water-jet looms.

(120)

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5th Sem / Textile Design

Subject : Fabric Manufacture - III

Time : 3 Hrs.

M.M. : 60

SECTION-A

- Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 What is the main advantage of unconventional weaving machines over traditional shuttle looms?
- a) Lower cost
 - b) Higher speed and efficiency
 - c) Less complexity
 - d) Requires manual operation
- Q.2 Which of the following is a type of unconventional picking mechanism?
- a) Shuttle picking
 - b) Rapier picking
 - c) Hand picking
 - d) None of the above
- Q.3 In a projectile loom, the projectile carries the weft yarn across the warp using:

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- a) Air pressure b) Water pressure
 c) Mechanical gripping d) Magnetic force
- Q.4 Which type of weft insertion mechanism is used in an air-jet loom?
 a) Projectile b) Rapier
 c) Jet of air d) Shuttle
- Q.5 What is the primary disadvantage of water-jet weaving machines?
 a) High energy consumption
 b) Limited to hydrophobic yarns
 c) Slow production speed
 d) Expensive maintenance
- Q.6 The Gabler and Dewas systems are associated with which type of loom?
 a) Projectile loom b) Water-jet loom
 c) Rapier loom d) Air-jet loom

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Name one type of unconventional picking mechanism.
- Q.8 The function of a weft accumulator in weaving machines is_____.

- Q.9 List one advantage of projectile looms over shuttle looms.
- Q.10 What is the role of a profiled reed in an air-jet loom?
- Q.11 The formation of tucked-in selvedge is a characteristic feature of which loom?
- Q.12 What problem is commonly associated with air-jet looms?

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain the working principle of a projectile loom.
- Q.14 What are the different types of selvedges used in weaving?
- Q.15 Describe the classification of rapier looms.
- Q.16 Compare the advantages and disadvantages of air-jet looms.
- Q.17 Explain the sequence of weft insertion in a projectile loom.
- Q.18 How does a water-jet loom differ from an air-jet loom?
- Q.19 What are the main features of Gabler and Dewas systems of weft insertion?
- Q.20 Describe the role of the weft accumulator in modern looms.