

Started on

State

Completed on

Time taken

Question 1

Complete

Marked out of 1.00

With increase in reed width the WIR of a loom

Select one:

- ☐ a. Decreases initially and then increases proportionately
- ☐ b. Increases proportionately
- ☒ c. Increases in a nonlinear manner

Question 2

Complete

Marked out of 1.00

Water is heavier than air under standard conditions by

Select one:

- ☐ a. 500 times
- ☒ b. 1,000 times
- ☐ c. 1,500 times
- ☐ d. 100 times

Question 3

Complete

Marked out of 1.00

The factor that does not influence the propelling force for moving the weft yarn on air jet loom is

Select one:

- ☐ a. Air velocity
- ☐ b. Coefficient of friction between air and yarn
- ☒ c. Yarn strength

Question 4

Complete

Marked out of 1.00

In air jet loom

Select one:

- ☐ a. Each relay nozzle has separate jetting time
- ☒ b. Relay nozzles of a group start jetting at the same time
- ☐ c. All the relay nozzles start jetting at the same time

Question 5

Complete

Marked out of 1.00

From the point of view of economics of woven fabric production the factor of greatest significance in modern times is to design a machine which

Select one:

- ☐ a. Creates least noise
- ☐ b. Consumes least energy
- ☒ c. Is most versatile and flexible

Question 6

Complete

Marked out of 1.00

Match the pairs

- | | |
|----------------------------------|---|
| A. Tucked selvages | 1. Rapier and air jet |
| B. Fused selvages | 2. Gripper and air jet looms |
| C. Leno selvages | 3. Gabler rapier with double pick insertion |
| D. Normal selvedge on both sides | 4. Water jet looms |

Select one:

- ☐ a. (A3, B1, C4, D2)
- ☐ b. (A2, B4, C1, D3)
- ☐ c. (A2, B4, C3, D1)

Question 7

Complete

Marked out of 1.00

Optimization of air consumption of an air jet loom and improving uniformity of drag on weft can be achieved by

Select one:

- ☐ a. Reducing the number of relay jets controlled by a valve and moving relay jets away from each other
- ☐ b. Increasing number of relay jets controlled by a valve and moving relay jets away from each other
- ☐ c. Reducing the number of relay jets controlled by a valve and bringing relay jets closer to each other
- ☐ d. Increasing the number of relay jets controlled by a valve and bringing relay jets closer to each other

Question 8

Complete

Marked out of 1.00

Profile reed and relay jets in air jet looms

Select one:

- ☒ a. Contribute to raising WIR and reed width while increasing air consumption but treating the weft more gently
- ☐ b. Contribute to raising WIR and reed width while decreasing air consumption and treating the weft more gently
- ☐ c. Contribute to raising WIR and reed width for the same air consumption by subjecting the weft to a more vigorous treatment

Question 9

Complete

Marked out of 1.00

Match the pairs

- | | |
|--|---|
| A. Small sweep of sley | 1. Fluid carrier of weft |
| B. Amplitude of sley oscillation and inertia of weft carrier | 2. Water jet loom |
| C. Absence of decelerating element | 3. Jet looms |
| D. Absence of dwell of sley and healds | 4. Bottleneck of gripper and rapier looms |

Select one:

- ☒ a. (A3, B4, C1, D2)
- ☐ b. (A2, B4, C3, D1)
- ☐ c. (A2, B4, C1, D3)

Question 10

Complete

Marked out of 1.00

Water jet stream emerging from nozzle has a much lower velocity than that of air jet stream because

Select one:

- ☐ a. Aerodynamic resistance to water jet stream is higher than that against air jet stream
- ☐ b. The efficiency of water jet nozzle in conversion of potential energy to kinetic energy is lower than that of air jet nozzle
- ☐ c.
- ☒ d. Kinematic viscosity of water is much higher than that of air

Question 11

Complete

Marked out of 1.00

Drag exerted by jet fluid on pick of weft is

Select one:

- ☐ a. Inversely proportional to the Reynolds's number
- ☐ b. Directly proportional to the velocity difference between fluid and weft
- ☐ c. Directly proportional to fluid viscosity and yarn diameter
- ☒ d. Directly proportional to yarn diameter and Reynolds's number

Question 12

Complete

Marked out of 1.00

Match the pairs

- | | |
|--------------------|--|
| A. Water jet looms | 1. Very high WIR and high reed width |
| B. Rapier looms | 2. Specially suited for weaving delicate yarns |
| C. Air jet looms | 3. Only hydrophobic yarns |
| D. Griper looms | 4. Moderately high WIR and highest possible reed width |

Select one:

☐ a. (A2, B1, C4, D3)

☐ b. (A3, B2, C1, D4)

☐ c. (A3, B4, C2, D1)

Question 13

Complete

Marked out of 1.00

Match the pairs

- | | |
|---|-------------------------|
| A. Permanent magnet of AC induction motor | 1. Servomotor |
| B. Inverter controlled input fed to | 2. Rotor |
| C. High torque to driving motor | 3. Slowing down machine |
| D. Motor fed with reduced frequency | 4. Avoid starting mark |
| E. Let-off and take-up motions | 5. Stator |

Select one:

☐ a. (A3, B1, C4, D5, E2)

☐ b. (A1, B4, C3, D2, E5)

☐ c. (A4, B2, C5, D1, E3)

☐ d. (A2, B5, C4, D3, E1)

Question 14

Complete

Marked out of 1.00

An inverter controlled asynchronous AC motor can be fed

Select one:

- ☐ a. Varying input voltage compensated by dependent frequency
- ☐ b. A very high surge in input voltage for a considerable length of time
- ☐ c. A surge in input voltage for a short time and independently varying frequency

Question 15

Complete

Marked out of 1.00

Match the pairs

- | | |
|------------------------------|---|
| A. Isentropic flow | 1. Prominent effect of friction |
| B. Fanno flow | 2. No effect of friction |
| C. Rise in Reynolds's number | 3. Suppression of turbulence at nozzle exit |
| D. Longer air tube | 4. Suppression of effect of friction |

Select one:

- ☐ a. (A2, B1, C4, D3)
- ☐ b. (A1, B4, C3, D2)
- ☐ c. (A4, B2, C1, D3)
- ☐ d. (A3, B1, C4, D2)