Q.1. A Choose the correct giving reason.

1) Fabric cover on a loom is improved by:
   a) Raising the back test.
   b) Having early shedding.
   c) Having later picking.
   d) None of above.

2) Side weft fork on a loom stop.
   a) Two picks before weft finished.
   b) One picks before weft finished.
   c) Just as the weft finishes.
   d) After weft has finished.

3) The change in loom electricity resulting in change in:
   a) Loom speed
   b) Picks / inch
   c) Beat up force
   d) Ends/inch

4) $5^2$ Reed means there are number of dents/inch equal to
   a) 52
   b) 26
   c) 104
   d) None

B Explain the sectional warping process in detail and given difference between ordinary and sectional warping machine.

C What is eccentricity of loom? On given loom the radius of crank $r = 3.5$ cm and length of connecting arm $l = 10$ cm, Find eccentricity ratio $(e)$ and the value of eccentricity $(E)$.

Q.2. A Explain traversing mechanism provided on pin winding machine. What is traverse with in traverse?

P.T.O
B Find the Total Production of loom shed in meter/day from given data. (08)
- Type of fabric: 67/33 P/V, Twill fabric (2/1 Twill)
- Fabric specification (inch): 64 X 42, 48" wide
- Picks/min: 180
- Efficiency: 80%
- Number of Loom: 20
Also find out speed of bottom shaft and tappet shaft. (Assume suitable data if required)

Q.3. A Draw the Heald displacement diagram for Bottom stationary close shed and semi open shed. Also give advantages and disadvantages of both. (08)

B What is bunch? Give the importance of bunch in pirn winding. Explain bunching mechanism. (08)

Q.4. A Define SHM (Simple harmonic motion). Draw velocity, acceleration and displacement curve for different type of motion. Also explain which type of motion given to heald, shuttle and sley. (09)

B What is Dwell? Give the factor affecting the shed geometry. (07)

Q.5. A Define Nonwoven. Explain how the Nonwoven fabrics are manufactured. (08)


Q.6. A Justify following statement: (06)
1. The back heald shaft given the more lift then front heald shaft.
2. Beat up at cross shed is not preferable for silk fabric.
3. Loose reed warp protector motion is not used for producing heavy fabrics.

B Answer what will happen if...
1. Heald shaft leveled at 330°.
2. Crank arm radius is increase.
3. End breaks and loom is running.
4. Tension variation in pirn winding during filament winding.
5. Size pick up is more.

Q.7 A What is sizing? Give the importance of sizing. Explain sizing process in detail. (09)

B Explain different type of creel use in warping machine. (07)

Q.8 A Give the functions of following parts.
   a) Check strap b)Picker c) Cam d) Needle (04)

B Draw the sketch only
   a) Size Box b) 2up /1 down Twill Weave c) Warp passage on loom (06)

C Give Timing diagram for filament weaving and explain what are the changes required in primary motion for filament weaving. (06)

$\$\$\$\$\$