Q.1
A Choose the correct giving reason. (8)

1) Dwell for 2 up/1 down twill is
   a) 60
   b) 80
   c) 40
   d) None of above.

2) Wind is defined as
   a) Number of coil per traverse
   b) Number of coil per double traverse
   c) Number of groove in cylinder
   d) Winding speed in m/min

3) The radius of crank $r = 4.75$ cm and length of connecting arm $l = 10$ cm, the loom eccentricity will be
   a) 0.502
   b) 2.105
   c) 0.475
   d) 40.75

4) 24° Reed Count and 4 ends/dent then end/inch equal to
   a) 24
   b) 48
   c) 60
   d) None

B Give Timing diagram for cotton and filament weaving. Give any two modification required in loom for filament weaving.

Q.2
A What are the objectives of warping? Explain the sectional warping process in detail and given difference between ordinary and sectional warping machine. (8)

B Find the total production of loom shed in meter/day from given data. (8)
   - Type of fabric: 60/40 P/C. Plain fabric
   - Fabric specification (inch): 40X36, 36° wide

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- Picks/min: 185
- Efficiency: 70%
- Number of Loom: 28

Also find out Reed count and Total Number of ends in fabric (Assume suitable data if required)

Q.3 A Give the classification of different type of Shed. Explain in brief with its advantages and disadvantages. (8)


Q.4 A Compare warp knitting with weft knitting process. Give the detail of Latch needle and give weft knitting cycle of fabric manufacturing (8)

B What is sizing? Give the importance of sizing. Explain sizing process in detail. (8)

Q.5 A What is anti patterning? How patterning can be avoided? Explain anti patterning mechanism with neat sketch. (8)

B Give classification of Loom. Give the difference between shuttle loom and shuttleless loom. Also give important feature of shuttleless loom. (8)

Q.6 A Explain different type of tensioner and clearer use in winding machine. (6)

B Answer what will happen if...
   1. Tension Variation during winding of pirl
   2. Crank arm length is increase.
   3. Sudden change in Humidity in weaving shed
   4. The back head shaft given the same lift as front head shaft
   5. If pick density changes (10)

Q.7 A Give the factors effecting picking force. Explain Under pick mechanism with its advantage and disadvantage. (8)

B Give Importance of warp protector motion. Compare Loose reed with Fast warp protector motion. (8)

Q.8 A Give the functions of following parts.
   a) Tappet   b) Projectile   c) Sectional Reed   d) Needle (4)

B Draw the sketch only
   a) Size Box   b) Picking Tappet   c) Passage of yarn on winding machine. (6)

C Draw shed geometry. Which are the factors affecting shed geometry? (6)