Q1 Write Short Notes on any five of the following
   a. Warping performance and cone length variations.
   b. Effect of warping tension on performance of sizing and loom shed.
   c. Control on sizing conditions.
   d. Role and scope of process control in pirn winding.
   e. Humidification and Ventilation controls in Weaving.
   f. Control of hard wastes in weaving.
   g. Yarn clearing efficiency in winding.
   h. Quality of warping beams.

Q2
   a. What are the normal package faults in winding? Explain the reasons.
   b. How do you estimate and work out efficiency of winding?

Q3
   a. Explain the desirable properties of good sized beam.
   b. What is the contribution of sizing quality to the warp breakages in weaving?

Q4
   a. How will you design control and check points for a warping process?
   b. What are the essential check points for an air jet weaving machine?

Q5
   a. If two lots of cotton yarns are given, how will you decide which lot is to be used for warp on a high speed air jet weaving machine?
   b. The test reports of two bags of cotton yarn are as follows. Which one is better for high speed warping? Give reasons.

<table>
<thead>
<tr>
<th>Count Ne</th>
<th>Bag - 1</th>
<th>Bag - 2</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>40.35</td>
<td>39.90</td>
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<tr>
<td>Count CV%</td>
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<td>1.7</td>
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<tr>
<td>TPM</td>
<td>1120</td>
<td>1200</td>
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<tr>
<td>TPM CV%</td>
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<td>6.0</td>
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<tr>
<td></td>
<td>RKM</td>
<td>Tensile CV%</td>
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<tr>
<td>-------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>15.2</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>17.0</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Q6  
(a) Explain the term Classimat faults and its use in selecting yarns.  
(b) What is first piece checking? How it differs from regular fabric inspection?

Q7  
(a) How do you fix norms for loom efficiency considering variations you are getting in day to day working?  
(b) What is avoidable and unavoidable hard wastes in sizing?

Q8  
(a) Why moisture content in sized beam needs a control?  
(b) What is stretch in a sized yarn? How it affects loom performance?