B. Tech.
(SEM. VIII) EXAMINATION, 2006-07
ADVANCE WEAVING & PROCESS CONTROL

Time : 3 Hours] [Total Marks : 100

Note : (1) Attempt all questions.
(2) All questions carry equal marks.

1. Attempt any four of the following:-

   (a) Explain in detail, principle of working of air-jet loom.

   (b) With the help of neat diagrams, explain different types of weft supply packages used on shuttleless looms.

   (c) State the objects of weft tensioning devices mounted on shuttleless looms.

   (d) State the importance of weft measuring system used in shuttleless loom and explain the same with the help of neat diagram.

   (e) Explain different methods of classifying rapier looms.

   (f) With the help of neat diagram, explain mechanical type of weft feeding system mounted on shuttleless loom.
2. Attempt any **four** of the following:-

   (a) State the importance of selvedges. Also mention different types of selvedges formed on shuttleless looms.

   (b) With the help of neat diagram, explain the mechanism used to form a full-cross leno selvedge on shuttleless loom.

   (c) Explain different phases of weft insertion in case of water jet loom with the help of neat diagram.

   (d) With the help of neat diagram, explain beat up mechanism of Sulzer projectile loom.

   (e) With the help of neat diagram, explain double repair loop transfer type of weft insertion system.

   (f) With the help of neat diagram, explain compressed air distribution system used on Air-jet loom.

3. Attempt any **two** of the following:-

   (a) Classify multiphase loom. With the help of neat diagram, explain the mechanisms used to form the shed on multi-phase loom.

   (b) Explain in detail, technological advantages and disadvantages of multi-phase loom.

   (c) Discuss in detail techno-economics of air-jet looms over ordinary plain power loom and automatic shuttle looms.
4. Attempt any two of the following:-
   (a) What do you mean by snap study? How do you measure and control the quality in weaving using snap study method.
   (b) What do you mean by quality control in Winding? How do you achieve it?
   (c) State the factors influencing the amount of waste in sizing department? Explain, in detail, the steps involved in measurement and control of waste in sizing.

5. Attempt any two of the following:-
   (a) What do you mean by machine audit? Explain the steps involved in carrying out machinery audit in weaving department in detail.
   (b) Discuss in detail, various criteria to decide the optimum allocation of the looms to get the optimum results.
   (c) Discuss, in detail, the steps involved to control the consumption of accessories for the winding machine.

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