THE TEXTILE ASSOCIATION (INDIA)
A.T.A.(REVISED) PART-II EXAMINATION – 2013
PAPER – A 2.2
PRINCIPLES OF FABRIC MANUFACTURE

Date: 24.12.2013  MARKS : 100  Time: 2 pm to 5 pm

Instructions:
1. Attempt six questions out of which Q.1 is compulsory
2. Answer each next main question on new page
3. Figure to the right indicate full marks
4. Illustrate your answer with sketches and flow chart wherever necessary
5. Use of non programmable electronic pocket calculator permissible.
6. Mobile and any other communication devices are not allowed in exam hall.
7. Assume suitable data wherever necessary.

Q.1.
Write down the specific answers for the following:

i. State the importance of preparatory process in weaving.
ii. Describe the yarn numbering systems.
iii. Give the comparison between Dobby shedding and Jacquard shedding.
iv. Describe the knotting operations.

Q.2.
a. Discuss the working principle of High speed automation warp winding machine with technical features.
b. Describe the objects of sizing with the features of modern controls and developments in sizing

Q.3.
a. Discuss the primary motions of weaving.
b. Calculate the production of weft winding machine in kg per spindle for a machine run at speed of 800 mpm on 85% efficiency for 25/s Ne count in working of 8 hrs.

Q.4.
a. Drw the desing with draft and peg plan
   i. Satin
   ii. Ordinary honeycomb
   b. Calculate the resultant count of 2/20’s Ne and 20’s Ne

Q.5.
a. Why weft fork motion is required in loom? Discuss the side weft fork motion.
b. Calculate the production of power loom in meters for a loom run at 220ppm on 85% efficiency for 72 ppi, 88 ei and 8 working hours.

Q.6.
a. State the object of sectional warping. Describe the working principle of Sectional warping with suitable diagram.
b. What do you mean by rewound weft? Discuss it with the reference of working principle of weft winding machine.

Q.7.
a. Why we need of warp protecting motion? Discuss it with the working Principle of loose reed mechanism.
b. Describe the working of single lift, single cylinder Jacquard.

Q.8.
a. Write down the short note on any two:
   i. Temple roller
   ii. Size recipes
   iii. Drawing in operations

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