THE TEXTILE ASSOCIATION (INDIA)
G.M.T.A EXAMINATION-2018
SECTION-B, PAPER-(B-2)
FABRIC MANUFACTURE

MARKS: 100

Date: 23.12.2018
Time: 2.00 pm to 5.00pm

Instruction: 1. Attempt any six question out of which Q.1 is compulsory.
2. Answer each next main question on a new page.
3. Figure to right indicate full marks.
4. Illustrate your answers with sketches and flow chart wherever necessary.
5. Use of non-programmable electronic pocket calculator permissible.
6. Assume Suitable data wherever necessary.

Q.1A. Choose the correct answer and give reason.

1. What will be the weft insertion rate of airjet loom, if the reed width is 260 cm and loom speed 800 rpm
   a) 1350 b) 2080 c) 2359 d) 800

2. In fast reed warp protector motion which sensing element trigger the loom stoppage.
   a) Reed b) Swell c) Picker d) None

3. If fabric having 60 ends/inch and 4 ends/dent, then what will be the Reed Count?
   a) 15 b) 60 c) 30 d) 45

4. The sectional warping machine having creel capacity of 1000 packages. If fabric need to prepare having 60 ends/inch and 48 inch in width. The number of section required to prepare on sectional warping to prepare weaver’s beam are
   a) 6 b) 3 c) 10 d) 5

B. Draw the timing diagram for plain power loom. Explain early and late shedding.

C. Give the difference between Woven and Nonwoven fabrics.

Q.2A. Give the objectives of winding and explain the types of tensioner and clearer use in winding machine.

B. Compare ordinary and sectional warping machine. Explain the concept of sectional warping process.

Q.3A. Give classification of Nonwoven fabrics. Explain Needle punch nonwoven process.

B. Give the point of difference between warp and weft knitting process. Explain the construction detail of needles use in knitting process.

Q.4A. What are the objectives of sizing? Explain construction and working of size box with neat sketch.

B. Give the different types of shed forms. Compare Semi open shed with Open shed along with its merit and demerit.
Q:5A. Find out Total production of loom shed in kgs/day from the given data

- Type of fabric: P/V 60/40.
- Type of weave: Plain Weave
- Fabric specification: 60 x 36.
- Fabric width: 36 inch.
- Loom speed: 600 rpm
- Number of loom: 100

(Assume suitable data if required)

B. Answer what will happen, if ...

1. During warping end breaks and missing in weavers beam........
2. Back rest move in downward direction ....
3. Shuttle is not reaching in box ....
4. Size concentration is more..........