

THE TEXTILE ASSOCIATION (INDIA)
A.T.A. PART –I EXAMINATION -2020
PAPER-A1.4
ELEMENTS OF TEXTILE TECHNOLOGY
Marks: 100

Date: 27.12.2020

Time: 10.00 am to 1.00 pm.

Instructions:

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

Q 1. a) Fill in the blanks.

(6)

- i) Cotton fibre is _____ fibre.
- ii) Fibre strength is measured in _____ unit.
- iii) English count is _____ numbering system.
- iv) Evenness of draw frame sliver is _____ than carded sliver.
- v) In cotton spinning seeds are separated from fibre is done by _____ machine.
- vi) Output material of carding machine is _____.

b) Say True or False

(6)

- i) Carded yarn is less uniform than combed yarn.
- ii) Tex is direct yarn numbering system.
- iii) Beat-up is a primary motion of loom.
- iv) Silk fibre is regenerated type of fibre.
- v) Output of blow room machine is sliver.
- vi) Sizing is done before warping.

c) Write short notes on following (any two)

(8)

- i) Filament yarn
- ii) Ginning
- iii) Comber noil

Q 2. a) Explain objects of following in brief (Any Two)

(8)

- i) Comber
- ii) Speed Frame
- iii) Texturizing

b) Explain input and output of each process of cotton spinning

(8)

- Q.3 a)** Explain fibre classification by neat chart (8)
- b)** Explain following terms (8)
- i) Winding
 - ii) Double yarn
- Q.4.a)** Explain primary motions of loom (4)
- b)** Explain process flow chart for yarn into fabric for cotton (4)
- c)** Explain classifications of looms from handlooms to shuttle less looms (8)
- Q.5.a)** Discuss the objects of Sizing and warping. (8)
- b)** Explain yarn numbering system with examples. (8)
- Q.6.a)** Explain different end uses of woven, nonwoven and knitted fabrics. (6)
- b)** Explain difference between carded yarn and combed yarn. (4)
- c)** Convert the following (Any two) (6)
- i) 40^s Ne to tex.
 - ii) 90 - denier to English count.
 - iii) 100 - denier to tex.
- Q.7.a)** Explain direct dye, vat dye and disperse dye (8)
- b)** Explain the process flow chart of wet processing for cotton fabric. (8)
- Q.8.a)** Explain objectives of following processes (Any two) (8)
- i) Printing, ii) Scouring, iii) Bleaching
- b)** Explain the following (Any two) (8)
- i) Finishing
 - iii) Desizing
 - ii) Mercerizing
