

THE TEXTILE ASSOCIATION (INDIA)
ATA Part II Examination 2020
Paper A2-4
Principles of Textile Testing and Statistics
Marks – 100

Date 27.12.2020

Time 2.00 pm to 5.00 pm

Instructions:

1. Answer any **six** questions out of which **Question No1** is compulsory.
2. Answer each next main question on a new page.
3. Figure to the right indicate full marks.
4. Illustrate your answers with sketches and flow chart wherever necessary.
5. Use of non- programmable electronic pocket calculator permitted.
6. Mobile and any other communication devices are not allowed in examination hall.
7. Assume suitable data wherever necessary.

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|-----------|--|-----------|
| Q1 | State true or false; justify your answers by giving reasons. | 20 |
| | a. Gravimetric method of assessing yarn evenness is practiced in the mills as it is easy and accurate. | |
| | b. The Control Limits in a Control Chart are derived from the CV% of the material being produced. | |
| | c. By using Baer Sorter, we can assess 2.5% and 50% span lengths of Polyester staple fibres. | |
| | d. Tongue Tear and Wing Tear testing are very popular methods of assessing yarn strength. | |
| | e. Fabric weight per unit area is expressed as Gms/Den | |
| Q2 | a. Explain the method of testing Count/Tex of yarn from a piece of fabric. | 16 |
| | b. Workout the denier of a filament if 36000 metres weigh 320 Gms. | |
| Q3 | a. Explain the terms TPI and TPM of a yarn. Which is more reliable? | 16 |
| | b. Explain the method of testing TPI in a doubled yarn. | |
| Q4 | a. What are the different methods of measuring evenness of a cotton yarn? | 16 |
| | b. Explain the terms C _v m and U% of a yarn. | |
| Q5 | a. Explain the term Crimp in a Filament yarn. | 16 |
| | b. Explain the method of testing Crimp of yarns in a woven fabric. | |
| Q6 | a. Explain the terms Monofilament and Multifilament yarns and their important properties | 16 |
| | b. Explain the different tests conducted for a POY yarn. | |
| Q7 | a. What is the difference between Average Count and Resultant Count? | 16 |
| | b. Explain importance of maintaining moisture content while testing count and strength of a yarn. | |
| Q8 | a. Explain the method of testing fabric stiffness. | 16 |
| | b. Explain the method of testing drape of a fabric | |
