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 No.1 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.

Q1 State true or false; justify your answers by giving reasons.
   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.
    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?
    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?
    b. Explain the terms CVm and U% of a yarn.

Q5 a. Explain the term Crimp in a Filament yarn.
    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
    b. Explain the different tests conducted for a POY yarn.

Q7 a. What is the difference between Average Count and Resultant Count?
    b. Explain importance of maintaining moisture content while testing count and strength of a yarn.

Q8 a. Explain the method of testing fabric stiffness.
    b. Explain the method of testing drape of a fabric

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