**THE TEXTILE ASSOCIATION (INDIA)**

ATA Part II Examination 2019
Paper A2-4

**Principles of Textile Testing and Statistics**
Marks – 100

Date 24. 12.2019

Time 2.00 PM to 5.00 PM

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**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.
   a. Mean length of fibre is more important that effective length for spinning.
   b. NaOH swelling test method is used to assess the shrinkage property.
   c. Cloth cover factor is tested by covering the entire fabric while testing.
   d. Fabric dimensions are tested by CRE method rather than CRL.
   e. Crimp Stability of filaments is tested by using constant rate of traverse method.

**Q2**
   a. Explain the method of testing twist in a multifold yarn.
   b. Workout the twist factor for a yarn of Ne 20s with 840 TPM.

**Q3**
   a. Explain the terms SD and CV in testing.
   b. Explain the significance of SD in preparing Control Chart.

**Q4**
   a. What are the different methods of measuring fibre length of cotton fibre?
   b. Explain the terms UR and 50% span length.

**Q5**
   a. Explain the term Crimp in a woven cotton fabric.
   b. Explain the method of testing Crimp of a textured filament.

**Q6**
   a. Explain the term POY and its important properties
   b. Explain the different tests conducted for a textured yarn.

**Q7**
   a. What is the difference between Moisture Content and Moisture Regain?
   b. Explain a method of testing moisture content of yarn in a cone.

**Q8**
   a. Explain the method of assessing blend composition of polyester cotton yarn.
   b. How testing of blend composition differs from the method for identifying possible mix up of different fibre component in a yarn?