THE TEXTILE ASSOCIATION (INDIA)

GMTA (REVISED) EXAMINATION --2016

SECTION- B  PAPER --B.5

TEXTILE TESTING

Date: 27.12.2016  Marks -100  Time:- 02.00 p.m. to 05.00 p.m.

Instructions: 1. Attempt six questions out of which question no 1 is compulsory
2. Answer each next main question on new page
3. Figure to the right indicate full marks
4. Illustrate your answer with sketches and flow chart wherever necessary
5. Use of non programmable electronic pocket calculator permissible
6. Mobile and any other communication devices are not allowed in exam hall
7. Assume suitable data wherever necessary

Q1. Give to the point answer to the following questions 2x10=20

(a) Define Tex and its relation with English count.
(b) What are the standard atmospheric conditions?
(c) Define Maturity ratio of cotton fibre?
(d) What is 2.5% span length
(e) What are the objectives of quality control?
(f) Convert 30s Ne to denier count.
(g) Define crimp % of fabric
(h) What is the solvent for polyester fibre?
(i) How the abrasion resistance of fabric is assessed?
(j) Which fabric properties can be tested in KAWABATA System of testing?

Q2. (a) Classify various type of quality control charts used in a textile mills
(b) Define Moisture regain and Moisture content of textile fibre. Establish the relationship between them. 8+8=16

Q3. What is AFIS? What is the principle of working of an AFIS, explain with a neat sketch. which are the properties of fibre tested using AFIS? 16

Q4. (a) Define hairiness of yarn. How the hairiness of yarn can be measured with photoelectric method?
(b) What is classmate fault? Explain the Classmate chart with reference to yarn fault. 8+8=16
Q5. (a) What is twist multiplier? Derive the relationship between twist multiplier and T.P.I.
   (b) Explain the factors to be considered for deciding the T.M. of a particular yarn count.  

Q6. Distinguish between
   (i) Grab test and strip test of fabric
   (ii) Tensile strength and tearing strength of fabric
   (iii) Water proof and Water repellent fabric
   (iv) Direct and indirect method of yarn numbering system  

Q7. What is air permeability and air resistance? Explain with a neat sketch the working of an air permeability tester. 

Q8. Write short note on the following  

(a) Drape meter
(b) Abrasion resistance
(c) HVI
(d) Washing fastness

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