

Roll No.

Printed Pages : 4

36138**BT-6 / M-18****TEXTILE TESTING - II****Paper-TT-304N***Time allowed : 3 hours]**[Maximum marks : 75*

Note :- Attempt five questions in all, including Question No. 1 which is compulsory. Select one question from each unit. All questions carry equal marks.

Compulsory Question

1. Attempt all following multiple choice questions, each question carry one mark

- (i) Thickness of a woven fabric depends on
 (a) Linear density of yarns (b) Weave
 (c) Warp tension (d) None of these
- (ii) Crease recovery varies with fabric thickness
 (a) Directly (b) Inversely
 (c) Unaffected (d) None of these
- (iii) Weight of a fabric in garment industry is expressed in
 (a) pounds per square inch (b) kg/meter
 (c) oz/square meter (d) gram per square meter
- (iv) Which one of the following is not covered under performance property of a fabric
 (a) tensile strength (b) shower-proofness
 (c) drape (d) flame resistance

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[Turn over

(2)

- (v) Find the odd one out
 (a) RKM (b) Tenacity
 (c) Breaking Load (d) Strain
- (vi) Tear strength of which of the following fabric will be highest (keeping all parameters same except weave)
 (a) Plain weave (b) 2/1 Twill
 (c) 7 end sateen (d) does not depend on weave
- (vii) The unit of flexural rigidity is expressed as
 (a) Mg/cm (b) mg.cm
 (c) mg.cm³ (d) gm/cm²
- (viii) Which of the following factor does not affect the tensile results
 (a) Test length (b) Rate of loading
 (c) Atmospheric condition (d) None of these
- (ix) Which one of the following is not related with fabric comfort
 (a) Thermal comfort (b) Moisture transport
 (c) Air-permeability (d) None of these
- (x) Find the odd one out
 (a) KES (b) FAST
 (c) Low stress mechanical properties
 (d) Water vapour permeability
- (xi) Which one of following does not have any link with FAST
 (a) Japan (b) Australia
 (c) CSIRO (d) Objective assessment

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(3)

- (xi) A breathable fabric
- allow the water droplets to pass through
 - allow the water vapour to pass through but not the water droplet
 - does not allow the water vapour and water droplets
 - allow only air to pass through
- (xiii) In order to control the variability of a variable, the sample ranges are plotted on which chart.
- X-chart
 - R-chart
 - P-chart
 - nP chart
- (xiv) Percentage of defectives are plotted on which chart
- X-chart
 - R-chart
 - P-chart
 - nP chart
- (xv) Which one is related with the mechanical behaviour of the textiles 15×1=15
- Visco-elasticity
 - Creep
 - Stress relaxation
 - All of these

Unit-I

- Differentiate between waterproof and shower-proof fabrics. Discuss instrument with neat diagram to measure the shower-proofness of a fabric. 8
 - Discuss the fabric shrinkage measurement procedure. 5
 - Define drape and crease recovery. 2
- Discuss the factors affecting the flame resistance of a fabric. How flame resistance of a fabric is measured? 7

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(4)

- Define air permeability and write its measurement unit? Discuss the working of air permeability measurement apparatus with neat diagram. 8

Unit-II

- Explain the working principle of Elmendorf tear tester with neat diagram. Discuss the factors which affect tearing strength of a fabric. 10
 - How fabric bending properties are evaluated? 5
- Discuss the principle and working operation of the tensile strength tester. Discuss the factors affecting the results of tensile testing. 12
 - Define Tenacity, Work of rupture & Yield point. 3

Unit-III

- Explain the concept of objective assessment of fabric handle with reference to Kawabatt Evaluation System (KES). 15
- Define Fabric comfort. What are the various fabric properties which are essential in maintaining fabric comfort? Discuss each briefly. 15

Unit-IV

- What are control charts? Discuss their types and what rules do they play in controlling the quality. 15
- What are breathable fabrics? How moisture transmission through breathable fabrics is measured? 8
 - What are the different tests to characterise filtration materials, protective textiles and Geo-textiles? 7

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