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3 Ho	ours / 100 Marks Seat No.	
Instructions – (1) All Questions are Compulsory.		
	(2) Answer each next main Question on a new page.	
	(3) Illustrate your answers with neat sketches wherever necessary.	
	(4) Figures to the right indicate full marks.	
	(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.	
	Mark	
1.	Attempt any <u>FIVE</u> of the following: 2	
a)	Define the terms:	
	(i) British count	
	(ii) Yarn twist.	
b)	Define the terms Denier and Tex. Give its formula.	

- c) State the concept of warp cover factor and weft cover factor.
- d) Define and explain the terms 'water proof' and "water repellent'.
- e) Define pilling. State the factors responsible for pilling of fabric.
- f) Define the terms:
 - (i) Tenacity
 - (ii) Work of rupture.
- g) State the principle of tearing strength tester.

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2. Attempt any TWO of the following: 16 a) Explain the concept of Direct and Indirect varn numbering system. b) Define and explain the term U% and CV% with sketch. State the concept of crease recovery and explain the method c) to measure it. 3. Attempt any TWO of the following: 16 a) Describe a method of measuring yarn twist by twist contraction principle. b) Define 'Fabric width'. Describe a method of measuring fabric width c) Define "drape coefficient". Describe a method of measuring drape of a fabric. 4. Attempt any TWO of the following: 16 a) Describe measurement of pilling by ICI Pill box tester. b) Describe measurement of single varn strength of varn with sketch. (i) Draw sample size for tearing strength tester. c) (ii) Explain the principle of bursting strength testing. 5. Attempt any TWO of the following: 16 a) Describe measurement of abrasion resistance by Martindales abrasion tester. b) Describe hydrostatic water head test for measurement of water

proofness.

c) Describe the process to measure tensile strength a yarn.

Attempt any **TWO** of the following: 6.

- a) Define 'air permeability'. Explain the factors affecting air permeability.
- b) Describe the methods of measuring threads / unit length in a fabric.
- Define crimp % and crimp. c) (i)
 - State the effect of yarn unevenness on yarn and fabric (ii) properties.