

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023  
(Fourth Semester)

Branch – COSTUME DESIGN AND FASHION

**TEXTILE TESTING**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Name the most commonly used unit for fibre fineness in the direct system  
(i) Linear density (ii) Denier  
(iii) Tenacity (iv) Airflow method
- 2 It refers to the thickness of a yarn and is determined by its mass per unit length.  
(i) Yarn twist (ii) Fineness  
(iii) Yarn count (iv) Yarn strength
- 3 Which fabric has the best air permeability?  
(i) Wool (ii) Cotton  
(iii) Nylon (iv) Lyocell
- 4 A fabric \_\_\_\_\_ tester is used to measure the bending height, flexural rigidity, and bending modulus of fabric.  
(i) Fineness (ii) Strength  
(iii) Abrasion (iv) Stiffness
- 5 \_\_\_\_\_ is a testing standard designed to measure the tensile properties of threads and yarns  
(i) ASTM D4966 (ii) ASTM D2256  
(iii) ASTM D5430 (iv) ASTM F1959

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a State the reasons for textile testing and quality control.  
OR  
b Infer the moisture regain and moisture content of any two textile fibres.
- 7 a Write the working principle of the yarn evenness tester.  
OR  
b List the effects of hairiness in yarn.
- 8 a Discuss the working procedure of the Loop length tester.  
OR  
b How to find out the air permeability of knitted fabric?

Cont...

- 9 a Discuss the working principle of Crimp tester.  
OR  
b How to analyze the crease recovery of the fabric?
- 10 a Define quality, quality control and quality assurance in the textile industry.  
OR  
b Explain the quality standards for textile yarn and fabric.

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a Explain the cotton fibre fineness test by Shirley fineness tester.  
OR  
b Discuss the standard atmospheric conditions for textile testing.
- 12 a Determine the cotton yarn strength and C.S.P using the Lea strength tester.  
OR  
b Give a brief note on different types of yarn numbering systems.
- 13 a Explain the testing of colour fastness to rubbing and perspiration.  
OR  
b How to find out the GSM of the knitted and woven fabric? Give the working procedure for knitted fabric.
- 14 a Determine the abrasion resistance ability of the textile fabric using the Martindale abrasion tester.  
OR  
b Discuss the working principle of Shirley stiffness tester.
- 15 a Give a brief note on types of quality inspection in a garment industry.  
OR  
b Define AQL sampling in quality control inspections. Explain its types.

Z-Z-Z

END