

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023  
(Second Semester)

Branch – COSTUME DESIGN AND FASHION

**TECHNICAL TEXTILES**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Meta-Aramid is a
  - (i) Natural fibre
  - (ii) High performance fibre
  - (iii) Composite fibre
  - (iv) Semi-synthetic fibre
- 2 Chitin is a \_\_\_\_\_ used in medical textiles.
  - (i) Polysaccharide
  - (ii) Monosaccharide
  - (iii) Protein
  - (iv) Carbohydrate
- 3 Indicate the essential properties that are required for geotextiles.
  - (i) Mechanical resistances
  - (ii) Chemical resistances
  - (iii) Filtration
  - (iv) All the above
- 4 From the following, which non-woven fabric in technical textiles is mostly used?
  - (i) Draperies
  - (ii) Luggage
  - (iii) Filtration
  - (iv) Bandages
- 5 E-Textiles are coming under the category of
  - (i) Medical textiles
  - (ii) Intelligent textiles
  - (iii) Protective textiles
  - (iv) Geo textiles

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Explain the manufacturing of Carbon fibres.  
OR  
b Discuss the application of optical fibres.
- 7 a State the application of surgical textiles.  
OR  
b Recommend the hygiene products in medical textiles.
- 8 a Discuss the concept of a tensegrity structure.  
OR  
b List out the applications of geotextiles.
- 9 a Compare waterproof and breathable fabrics.  
OR  
b Write about filtration textiles.
- 10 a State the benefits of smart textiles.  
OR  
b Explain the properties of sports textiles.

Cont...

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Classify the technical textiles in detail.  
OR  
b Determine the characteristics and applications of High-performance polyethylene fibres.
- 12 a Give an account on Dialysis textiles.  
OR  
b Elucidate the applications of non-implantable textiles.
- 13 a Explain how soil resistance and filtration are carried out using geotextiles?  
OR  
b Analyze the applications of agricultural textiles.
- 14 a Compare chemical protective and electrical protective clothing.  
OR  
b Evaluate the applications of protective clothing in defense.
- 15 a Determine the applications of textiles for camping & Hiking.  
OR  
b Recommend any two important smart textile products based on their performance enhancement.

Z-Z-Z

END