

THE TEXTILE ASSOCIATION (INDIA)
A.T.A. (Revised) PART III EXAMINATION- 2017
PAPER I A3C.1
ELEMENTS OF TECHNICAL TEXTILES

Date: 23.12.2017

Marks: 100

Time: 10.00am to 1.00pm

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Instructions:

1. Attempt any six questions from each section out of which Q.1 is compulsory
2. Answer each next main question on new page.
3. Figure to the right indicate full marks.
4. Illustrate your answers with sketches and flow charts wherever necessary
5. Use of non-programmable electronic pocket calculator permissible.
6. Mobile and any other communicable devices are not allowed in the exam hall.
7. Assume suitable data wherever necessary.

Q.1.i)	Define the term technical textiles. List their different segment. How do technical textiles differ from conventional textiles?	12
ii)	Classify the following into various segments of technical textile. Justify your answer a. Bandages b. Filter fabric b. Conveyor belt d. Parachute fabric	08
Q.2. i)	Define nonwoven fabrics. State the advantages of nonwoven fabrics	08
ii)	With a neat and labeled diagram, explain the needle-punched nonwoven fabric manufacturing technique	08
Q.3.i)	Compare and contrast the process of coating and laminating processes.	08
ii)	What are composites? What is the role of textiles in making of composites? Explain the different types of textile structures that can be used in making Composites	08
Q.4 i)	What are Geotextiles? Enumerate the various fibres used for the area of Geotextiles	08
ii)	Geotextiles help to improve the service life of roads. Justify with examples.	08
Q.5	Write a short note on Any Two i) Filtration textile ii) Defense textiles iii) Textiles in conveyor belts.	16
Q.6 i)	Define medical textiles. Classify them based on their application	08
ii)	Explain the different fibres that are used in medical textiles.	08
Q.7 i)	Explain the various types of Protective textiles based on their functional requirements	08
ii)	What are flame retardant textiles? Explain the importance of flame retardant materials. Briefly describe the different techniques of making flame retardant textiles.	08
Q.8 i)	Explain in detail the properties of textile materials used in Home textiles	08
ii)	What is chaffer fabric? How is it used in the tyre cord industry?	08
