



RN-7507

**B. E. - IV (Sem. VII) (Textile Technology)  
Examination  
May / June - 2010  
Non Woven, Geotextiles & Carpet Weaving**

Time : 3 Hours]

[Total Marks : 100

**Instructions :**

(1)

नीचे दर्शाविएल निशानीवाणी विगतो उत्तरवडी पर अवश्य कपनी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. E. - 4 (Sem. 7) (Textile Technology)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Non Woven, Geotextiles &amp; Carpet Weaving"/>	<input type="text"/>
Subject Code No. : <input type="text" value="7"/> <input type="text" value="5"/> <input type="text" value="0"/> <input type="text" value="7"/>	<input type="text"/>
Section No. (1, 2,...): <input type="text" value="1&amp;2"/>	<input type="text"/>
	Student's Signature

- (2) Answers to the two sections must be written in separate answer books.
- (4) Figures to the right indicate full marks.
- (3) Tie two sections separately.

**SECTION - I**

- |   |  |    |
|---|--|----|
| 1 | (a) Give the major difference between filtration and drainage function.              | 1  |
|   | (b) Name the two most used polymers in geotextile products.                          | 2  |
|   | (c) Enlist the three types of carpet backing used in the industry.                   | 3  |
|   | (d) Enlist the three sets of thread used to produce warp knitted carpets.            | 3  |
|   | (e) _____ carpets control the sick building syndrome.                                | 1  |
|   | (f) Discuss the application of EPS blocks.   | 10 |
| 2 | (a) Enlist the objectives to be achieved for ensuring the durability of geotextiles. | 5  |
|   | (b) Describe the construction basics of tufted carpets.                              | 10 |

**OR**

- 2 (a) Which are the essential properties of a fibre considered for making of geotextile ? 5
- (b) Discuss in detail status of Indian carpet industry. 10
- 3 Write short notes on : (any three) 15
- (i) Bonded pile method
- (ii) Cut-pile carpeting
- (iii) Oriental rugs
- (iv) Single frame Wilton.

## SECTION - II

- 1 (a) Do as directed : 10
- (i) Illustrate variations in double sided needling machine.
- (ii) Illustrate agglomerate structure.
- (iii) Give schematic diagram of Kiss Coater.
- (iv) Camel back laying machine is used to obtain \_\_\_\_\_ web.
- (v) \_\_\_\_\_ fibres are used in GRP.
- State True or False for the following :
- (vi) Saturation binding is a type of latex bonding.
- (vii) Adhesive in powder form is used in scatter coating.
- (viii) Needle density influences the structure of nonwoven.
- (ix) Spun laid uses water jets for binding of batt.
- (x) Discontinuous method of web formation uses a minimum of 3 cards for batt formation.
- (b) With the help of neat sketch, explain in detail the working of needle loom for manufacturing nonwovens. 10
- 5 (a) With the help of neat sketches describe Maliwatt stitch bonding. 7
- (b) Discuss the use of nonwoven in medical textiles. 8
- OR**
- 5 With the help of neat sketches explain the following : 15
- (i) Formation of cross laid webs.
- (ii) Melt blown technology.
- (iii) Blamire apparatus.
- 6 Write short notes on : (any three) 15
- (i) High performance fibres used for nonwovens.
- (ii) Water supply system used in wet laid manufacturing industry.
- (iii) Structure of nonwovens.
- (iv) Adhesives used in chemical binding.