

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2005.

Seventh Semester

Textile Technology

TT 045 — BONDED FABRICS

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Classify non-fabrics based on fiber arrangement.
2. List out some important end uses of spun bonded non-wovens.
3. When and where the first adhesive bonded fabrics produced commercially?
4. What is drift deposition system of web preparation?
5. What is agglomerate structure?
6. What are the factors determining the strength of mechanically bonded fabrics?
7. What are the factors influencing the bonding process?
8. What is adhesive spray bonding?
9. State the use of glass fiber webs in the production of non-wovens.
10. List out the enduses of bonded fabrics.

PART B — (5 × 16 = 80 marks)

11. (i) What are the factors to be considered while selecting the fibers for the production of bonded fabrics? (4)
- (ii) Write a note on High performance fibers used in the bonded fabric manufacture with their properties and end uses. (12)

12. (a) What are the various basic structure of bonded fabrics? Explain briefly about each structure.

Or

- (b) What are the various fiber web laying techniques? Explain briefly about each technique.

13. (a) What is the principle of stitch bonding technique? How will you produce stitch bonding without and with binding threads?

Or

- (b) What is the principle of adhesive bonding technique? List out the systems of application of adhesives. Explain any one adhesive bonding technique.

14. (a) Give a note on the influence of bonded fabric structure on its properties.

Or

- (b) With a suitable diagram, explain the bonded fabric with adhesives in the form of a scrim. Also state the properties of such fabrics based on its structure.

15. (a) What are Laminated fabrics? Explain the laminate combination and properties and end uses of such fabrics.

Or

- (b) Write short notes on :

- (i) Present trends in the production of bonded fabrics
- (ii) Filtration and non-wovens
- (iii) Hospital textiles and non-wovens
- (iv) Geo-textiles and non-wovens.

(4 × 4 = 16)