



## Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

### Bachelor's Degree Examination – August 2020 VI Semester

Class : III UG

Major : Textiles and Apparel Designing

15BTDC33 Non – Woven

Time : 2 Hours

Max. Marks : 50

#### Part – A

10 X 1 = 10

#### Choose the Correct Answer

1. A fabric like material which is made from short fibres, bonded together by chemical, mechanical, heat or solvent treatment is
  - a. woven
  - b. knitted
  - c. non woven
  - d. braided
2. Non woven material typically lack
  - a. stiffness
  - b. strength
  - c. elasticity
  - d. blending
3. Baby diapers, mask, gloves etc are the examples of
  - a. woven
  - b. non woven
  - c. knitted
  - d. braided
4. Bonding fibres are usually made from \_\_\_\_\_ polymers.
  - a. thermoplastic
  - b. cotton
  - c. polyester
  - d. silk
5. The \_\_\_\_\_ is the most widely used binder.
  - a. polymeric
  - b. acrylic
  - c. acetate
  - d. chlorides
6. The process following the initial opening of the raw material is
  - a. combing
  - b. drawing
  - c. carding
  - d. twisting
7. In \_\_\_\_\_ system the webs are five to six times stronger along its length than across its width.
  - a. wet laid
  - b. cross laid
  - c. parallel laid
  - d. random laid
8. The binding of fibres using needles is known as
  - a. needle punching
  - b. stitch bonding
  - c. hydro entanglement
  - d. print bonding
9. The machine used in stitch bonding is a modified
  - a. weft knitted machine
  - b. warp knitted machine
  - c. power loom
  - d. dobby loom
10. The bonding by means of spraying the binders onto the textile web is known as
  - a. needle punching
  - b. stitch bonding
  - c. hydro entanglement
  - d. spray bonding

**Part B**

**3 x 6 = 18**

Answer any **Three** questions

**Each answer should not exceed 400 words or two pages**

11. Define Non woven and draw the flowchart for the classification of non woven.
12. State the characteristics of non woven fabrics.
13. Give an account on wet laid fibre webs.
14. Briefly write on cross laid webs.
15. Write short note on hydro entanglement.
16. State the procedure followed in making needle punched fabric.
17. Summarize on spray bonding.
18. Give short notes on print bonding technique.
19. How will you evaluate the stiffness of a non woven fabric?
20. Evaluate the thickness of a non woven fabric.

**Part C**

**2 x 11 = 22**

Answer any **Two** questions

**Each answer should not exceed 800 words or four pages**

21. List and explain the application of non woven fabrics.
22. Distinguish between advantages and disadvantages of non wovens.
23. Explain air laid web.
24. Elaborate on parallel laid web formation.
25. Give a detailed note on thermal bonding.
26. What is belt calendaring? Explain.
27. Describe spun laced bonding, with suitable examples.
28. With a neat sketch explain foam bonding.
29. Analyse the tensile strength of the non woven fabric.
30. Explain Air permeability test.

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