

- (f) What do you understand by punch density ?
- (g) Nonwoven fabrics are widely used for filters.
State the reason.
- (h) Why point bonding is preferred over area bonding in nonwoven fabrics ?
- (i) Give two applications each of needle punched and wet laid fabrics.
- (j) What is the effect of calender temperature and delivery speed on the strength of thermal bonded fabric ? **10×2=20**

Roll No.

Total Pages : 04

July-22-00392

B.Tech. EXAMINATION, 2022

Semester VI (CBCS)

NON-WOVEN TECHNOLOGY

TE-604

Time : 3 Hours

Maximum Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt *Five* questions in all, selecting *one* question from each Sections A, B, C and D. Q. No. **9** is compulsory.

Section A

1. Classify Non-woven fabrics and give the brief idea about of different techniques you have mentioned in your classification. **10**

2. What are the characteristics of a good binder ?
Discuss different types of binders used for non-wovens. **10**

Section B

3. Discuss the Spun bonding technique and Melt blown technique with the help of suitable diagram. **10**
4. What is Stitch bonding technique ? Discuss Maliwatt and Malivlies stitch bonding techniques. **10**

Section C

5. Compare thermal and chemical bonding. Discuss various chemical bonding techniques with detail note on adhesives and binders. **10**
6. State the importance of drying for nowovens. Briefly discuss the advantages and disadvantages of conduction, convection and radiation dryers. **10**

Section D

7. Write short notes on various wet finishing techniques for Nonwoven : **10**
- (a) Washing
(b) Dyeing
(c) Printing.
8. Briefly discuss the chemical finishes applied on Nonwoven fabrics. **10**

(Compulsory Question)

9. (a) What EDANA stands for ?
(b) What do you mean by Wrenching process in Nonwoven technology ?
(c) What is isotropic orientation in webs ? What is the value of probability density function of isotropic fibre orientation ?
(d) What do you mean by SM and SMS fabrics ? Where are they used ?
(e) What is the depth of needle penetration ? How do you measure it on the machine ?