

P 482

B.Sc. (Applied Science) DEGREE EXAMINATION, NOVEMBER/DECEMBER 2003.

First Year

Apparel and Fashion Technology

FT 1.3 — YARN MANUFACTURE

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is the normal trash level allowed for a good short staple cotton?
2. Give the standard size and weight of Indian cotton bales.
3. Differentiate between blending and mixing.
4. Write down the differences between bladed and Kirschner beater.
5. Give the doffer wire specifications of a conventional carding machine.
6. Define nep. Why this should be removed?
7. What is the approximate length of a lap from a conventional sliver lap machine?
8. What are the objectives of drawing?
9. Give the range of roving hank. What is the maximum twist applied in a roving?
10. Give the speeds of various parts in a rotor spinning machine.

PART B — (5 × 16 = 80 marks)

11. Explain the principle, construction and working of macarthy Gin. (16)
12. (a) (i) Explain the various principles of fibre cleaning. (6)
- (ii) Explain the construction and working of any one cleaning machine. (10)

Or

- (b) (i) Give the passage of material in a scutcher. (6)
- (ii) Explain in detail the construction and functioning of calendering system and full lap stop motion mechanism of scutcher. (10)
13. (a) Draw the neat sketch of the passage of material in a carding machine and explain the functions of the various parts. (16)

Or

- (b) What is carding action? Explain the mechanism. Give the speeds and settings carried out in a conventional carding machine for short staple cotton to spin 40^S cotton. (16)
14. (a) Compare 3/3 and 3/5 drafting systems for their design, speeds, production and quality. (16)

Or

- (b) (i) Give the passage of material in a sliver lap machine. (4)
- (ii) Explain the following :
- (1) Sliver stop motion. (6)
- (2) Full lap stop motion. (6)

15. (a) Explain with sketches the methods of yarn winding with special emphasis on yarn traverse, cone building and ribbon breaking. (16)

Or

- (b) Write short note on the following :

(i) Rings and travellers. (8)

(ii) Pneumafilis. (8)
