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C20-TT–402

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BOARD DIPLOMA EXAMINATION, (C-20)

OCTOBER/NOVEMBER—2023

DTT – FOURTH SEMESTER EXAMINATION

YARN MANUFACTURE—II

Time : 3 Hours] [*Total Marks* : 80

PART—A 3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. State any three features of modern comber.

2. Write the importance of combing process.

3. State the principle of imparting twist on fly frame.

4. Mention the functions of spindle and flyer.

5. Write the functions of traveler.

6. List the functions of ring.

7. State the importance of spacer in ring frame.

8. List the different types of yarn clearers used in winding.

9. Mention the differences between straight reeling and cross reeling.

10. Mention the methods of doffing the hanks from reeling

PART—B

8×5=40

Instructions : (1) Answer **all** questions.

(2) Each question carries **eight** marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. *(a)* Explain the process of sliver doubling.

(OR)

(b) In a comber of 6 heads, the weight of lap feed is 1.7 kg (each head) and the collection noil corresponding to head was 158 g, 160 g, 152 g, 147 g, 157 g and 151 g. Find out the noil % for individual head and total comber.

12. *(a)* Explain the process of winding the bobbin in speed frame.

(OR)

(b) Calculate the production of simplex per 6 hours, when spindle speed is 1400 rpm, TPI is 1.3 and hank of roving is 1.2 efficiency is 87%.

13. *(a)* Explain the working of ring frame machine with a line diagram.

(OR)

(b) Explain the insertion of twist in the yarn in the following aspects :

(i) Direction of twist

(ii) Twist multipliers

14. *(a)* Explain the passage of material through an autoconer with a sketch.

(OR)

(b) Explain the effect, causes and rectification of the following common yarn package defects :

(i) Soft build of cone

(ii) Ring cuts

15. *(a)* Explain the passage of material on a reeling machine.

(OR)

(b) Discuss the factors to be considered while designing a spin plan.

PART—C

10×1=10

Instructions : (1) Answer the following question.

(2) The question carries **ten** marks.

(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

16. Justify why twist insertion is required in ring frame. How to change the twist direction in ring frame?

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