





10. Percentage of straight fibres in air jet spun yarn is approximately CO1 [K<sub>1</sub>]
- a) 10 % b) 30 %
- c) 50 % d) 80 %

**PART B (10 x 2 = 20 Marks)**  
**(Answer not more than 40 words)**

11. List the objectives of ring spinning machine. CO1 [K<sub>1</sub>]
12. Define the term traveller lag. CO1 [K<sub>1</sub>]
13. List the any four advantages of compact spinning. CO5 [K<sub>1</sub>]
14. Name any four different compact spinning systems. CO5 [K<sub>1</sub>]
15. Identify the stages of drafting that take place in rotor spinning. CO1 [K<sub>1</sub>]
16. Select the ideal raw materials meant for rotor spinning systems. CO1 [K<sub>5</sub>]
17. List the types of feeding in friction spinning system. CO6 [K<sub>1</sub>]
18. List the essential fibre characteristics required for air jet spinning process. CO6 [K<sub>1</sub>]
19. Identify any two advantages of using a Two for One twister. CO6 [K<sub>1</sub>]
20. Sketch the structure of Bobtex yarn. CO1 [K<sub>1</sub>]

**Answer any FIVE Questions:-**  
**PART C (5 x 14 = 70 Marks)**  
**(Answer not more than 300 words)**

**Q.No. 21 is Compulsory**

21. Choose and explain a suitable spinning technology for producing low hairiness yarns. CO1 [K<sub>5</sub>]
22. Calculate production in kgs per day of spinning mill with the following particulars: CO4 [K<sub>4</sub>]  
Spindle speed: 16000 RPM, TM: 3.2, Count: 36sNe, Total number of spindles: 10080,  
Efficiency: 91%.
23. Draw the passage of material through the rotor spinning machine and explain its objectives. CO1 [K<sub>2</sub>]
24. Explain the properties of rotor spun yarns and list its applications. CO1 [K<sub>2</sub>]
25. Discuss the influence of process parameters in friction spinning on yarn quality:- CO6 [K<sub>2</sub>]  
spinning drum speed, yarn withdrawal rate, friction ratio and suction air pressure.
26. With a neat sketch, explain the working of vortex spinning system and list any eight applications. CO6 [K<sub>2</sub>]
27. Explain the production of Bobtex yarn with a sketch and list its end uses. CO1 [K<sub>2</sub>]

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