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Total Number of Pages : 02

B.Tech.  
PCTX4204

**4<sup>th</sup> Semester Back Examination 2017-18**  
**YARN MANUFACTURE - II**  
**BRANCH : TEXTILE**  
**Time : 3 Hours**  
**Max Marks : 70**  
**Q.CODE : C1114**

**Answer Question No.1 which is compulsory and any five from the rest.**  
**The figures in the right hand margin indicate marks.**  
**Answer all parts of a question at a place.**

- Q1 Answer the following questions: (2 x 10)**
- a) Why 'False twist' are used in the Speed frame ?
  - b) What is 'Ring Flanges' ?
  - c) Mention the advantages and disadvantages of Pneumatic drafting system used in Ring Spinning.
  - d) What is the standard diameter and weight of a Roving package ?
  - e) Calculate the TPI of roving if roving hank is 1.2 and Twist multiplier is 1.5.
  - f) State the function of Sliver lap machine and Ribbon lap machine.
  - g) Why Balloon control rings are used in the Ring frame.
  - h) What is the function of 'Top comb' in the combing Machine ?
  - i) What is routine maintenance and preventive maintenance ?
  - j) Why Reeling machinery are used in the spinning mills ?
- Q2 a) Explain the working principles of a Sliver lap machine. (5)**  
**b) Describe the combing cycle with neat sketch. (5)**
- Q3 a) Describe the various causes of yarn faults and state their remedies. (5)**  
**b) Calculate the production in kg per day of a Ring frame from the following datas: (5)**  
Spindle speed = 12000 rpm, T.M. of yarn = 4.5, Yarn count = 20<sup>S</sup>, Number of spindles in the Machine= 480, Efficiency of the machine = 85%. (Assume suitable value for any missing data).
- Q4 a) Describe various parts and functions of a Speed frame. (5)**  
**b) Explain the roller drafting system of a Speed frame. (5)**
- Q5 a) Calculate the production of a Speed frame machine in kg per 08 hours from the following datas; (5)**  
Spindle speed = 1000 rpm, T.M. of roving = 1.6, Hank of roving = 1.0, Number of spindles in the Machine= 108, Efficiency of the machine = 85%.  
**b) Explain the building mechanism of a Speed frame. (5)**
- Q6 a) Calculate the Front roller speed in rpm of a Ring frame running with spindle speed of 12000 rpm , Yarn TPI is 20.0 and Front roller diameter is 25 mm. (5)**  
**b) Describe the Maintenance schedule of Ring Frame department of a spinning industry (5)**

- Q7** Name different parts of a Ring frame and state their functions. **(10)**
- Q8** **Write in short (any TWO) :** **(5 x 2)**
- a) Ring Doubling Machine
  - b) Ring flanges and Ring travelers
  - c) Ribbon lap machine
  - d) Apron drafting system