

THE TEXTILE ASSOCIATION (INDIA)
A.T.A Part III NEW THREE YEARS EXAMINATION-2020
PAPER- A3.OA2
MODERN YARN MANUFACTURE

Date: 27.12.2020

Marks: 100

Time: 10.00 am to 1.00 pm

Instructions:

1. Attempt **six** questions out of which **Q.1** is compulsory
2. Answer each main question on new page
3. Figures to the right indicate full marks
4. Illustrate your answers with sketches and flow-charts wherever necessary
5. Use of non-programmable electronic calculator permissible
6. Mobile and any communication devices are not allowed in exam hall
7. Assume suitable data wherever necessary.

Q1	Answer the following questions (Briefly).	20
	i. State the limitations of ring spinning.	04
	ii. Give the demerits of rotor spinning.	04
	iii. State the merits of rotor spinning.	04
	iv. State the classification of different modern yarn manufacturing system.	04
	v. State the advantages of self-twist spinning.	04
Q2		
	a. Explain the working principle of open-end spinning concept with neat labelled sketch.	08
	b. Describe the working procedure of rotor spinning machine with neat labelled sketch.	08
Q3		
	a. Explain the working principle with neat labelled sketch of twistless spinning and their advantages.	08
	b. Describe the working principle with neat labelled diagram of Airjet Spinning and their disadvantages.	08
Q4		
	a. Discuss the working principle of Cover spinning with help of neat labelled diagram.	08
	b. Explain the working procedure of Siro Spinning with help of neat labelled diagram.	08
Q5		
	a. Describe the outline of different spinning process	08
	b. Explain the working principle of Self twist spinning with help of neat labelled sketch.	08
Q6		
	a. Discuss briefly about the advances and recent development in spinning from blow room.	08
	b. Explain the new developments in spinning process with special reference to blow room and carding process.	08
Q7		
	a. Explain the working procedure of Au ^t omatic Bale openers	08
	b. Explain the automated transport mechanism in combing and ring frame sections	08
Q8		
	a. Explain the working procedure of compact spinning process with neat labelled sketch	08
	b. Discuss the working principle of chute feed mechanism in carding process with neat labelled sketch.	08
