

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-III EXAMINATION – SUMMER 2025****Subject Code:3132902****Date:29-05-2025****Subject Name: Yarn Manufacture I****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	<b>Marks</b>
<b>Q.1</b> (a) What are the objectives of the ginning. Give the name of the different types of ginning machines.	<b>03</b>
(b) Discuss the different functions performed in Blow room.	<b>04</b>
(c) With a suitable sketch explain the working principle of the Card.	<b>07</b>
<b>Q.2</b> (a) What are the objectives of the Card?	<b>03</b>
(b) Draw a flow chart to show the sequence of yarn formation in short staple spinning.	<b>04</b>
(c) Discuss about the latest developments in ginning and baling machineries.	<b>07</b>
<b>OR</b>	
(c) With a suitable sketch, explain the working principle of any one type of ginning machine.	<b>07</b>
<b>Q.3</b> (a) What are the objectives of the coarse cleaning and fine cleaning machines in blow room line?	<b>03</b>
(b) With a suitable sketch explain the construction and working of step cleaner.	<b>04</b>
(c) Discuss about the latest technological development in the Blow room.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Draw the different types of grid bars used in Blowroom.	<b>03</b>
(b) With a suitable sketch explain the working of electronic metal extractor used in Blow room.	<b>04</b>
(c) Discuss the latest technological development in the Card.	<b>07</b>
<b>Q.4</b> (a) Discuss the waste recycling process in Blow room.	<b>03</b>
(b) Discuss in brief any two types of sliver defects and their remedies.	<b>04</b>
(c) With a suitable sketch explain the working principle of a mixing machine used in Blow room.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Discuss the construction of the any one fine cleaning machine used in Blow room.	<b>03</b>
(b) Discuss the construction of flexible clothing in Card.	<b>04</b>
(c) With a suitable sketch explain the working of an automatic bale opening machine.	<b>07</b>
<b>Q.5</b> (a) With the suitable sketch show the different types of Card sliver coiling.	<b>03</b>
(b) What is the function of grid bars? Where are they located in the Card?	<b>04</b>
(c) What is the function of an autoleveller? With a suitable sketch, explain the functioning of the autoleveller in the Card.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) What is Tandem card?	<b>03</b>
(b) With a suitable sketch discuss the construction of the flats.	<b>04</b>
(c) What is the purpose of the grinding and stripping for card clothing? Briefly discuss the IGS-top integrated grinding system.	<b>07</b>

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