

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-III EXAMINATION – WINTER 2025****Subject Code:3132902****Date:12-12-2025****Subject Name: Yarn Manufacture I****Time:10:30 AM TO 01:00 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.

- Q.1** (a) Draw Process Flow Chart For Combed Yarn With Input And Output Of Each Process. **03**
 (b) Explain Construction And Working Of Mono Cylinder Cleaning Machine With A Labeled Figure. **04**
 (c) With Neat Sketch Draw Passage Of Material Through Carding Machine And Explain The Process. **07**
- Q.2** (a) Draw Sketches For The Different Types Of Grid Bars. **03**
 (b) Discuss On Processing Of Manmade Fibre At Blow Room **04**
 (c) Explain Principle Working Of Open Loop And Close Loop Autoleveller. **07**
- OR**
- (c) Discuss The Modern Developments In Blow Room With Suitable Figures. **07**
- Q.3** (a) Discuss Importance Of Card Setting. **03**
 (b) Discuss The Development Took Place At Licker-In Region With Suitable Figure **04**
 (c) Explain Construction And Working Of Mixing Machine Used In The Modern Blow Room Line With A Labeled Figure. **07**
- OR**
- Q.3** (a) Discuss The Objective Of Ginning Process. **03**
 (b) With Suitable Sketches Discuss The Different Types Of Grinding Tools Used For Sharpening Wire Points **04**
 (c) Explain The Working Of The Knife Roller Ginning Machine With A Labeled Figure. **07**
- Q.4** (a) Write The Formula To Calculate Cleaning Efficiency Of Blow Room. **03**
 (b) What Is The Role Of Blending In Spinning Process, Explain Different Types Of Blending. **04**
 (c) Discuss The Modern Developments In Blow Room. **07**
- OR**
- Q.4** (a) Mention The Objectives Of Blow Room **03**
 (b) Discuss Carding And Stripping Action. **04**
 (c) Calculate Production Of Carding Machine In Lb/Day, If Hank Of Sliver Delivered Is 0.11, Doffer Rpm Is 85. Efficiency Of Carding Is 90%. **07**
- Q.5** (a) Write Short Note On Quality Of Laps. **03**
 (b) Explain Construction And Working Of Step Cleaner With A Labeled Figure. **04**
 (c) What Is The Function Of The Metal Detector In Blow Room? With A Suitable Sketch Explain The Working Of Metal Detector Used In Blow Room. **07**
- OR**
- Q.5** (a) Draw A Flow Chart Showing Passage Of Material In The Tandem Card. **03**
 (b) Discuss The Advantages Of The Lap Feed System And Tuft Feed System In Card. **04**
 (c) List Different Card Clothing Used In Card? Discuss Any One In Detail **07**
