

Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2024

Subject Code:2150206

Date:14-05-2024

Subject Name:Automotive manufacturing

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.

MARKS

Q.1	(a) Write a note on green sand moulding.	03
	(b) Write a short note on the machine forged process with sketch.	04
	(c) Explain briefly the procedures of shielded metal arc welding. Also give its advantages and disadvantages.	07
Q.2	(a) Write functions of riser and runner in casting.	03
	(b) List the various processes of metal working? Draw the different arrangements of rolling processes.	04
	(c) Describe oxy-acetylene gas welding with neat sketch diagram.	07
OR		
	(c) Explain the manufacturing of seamless pipe and tubing with neat sketch.	07
Q.3	(a) What is stretch forming? Explain in brief	03
	(b) Which are the key features can be improved by using of superfinishing process in the automotive component?	04
	(c) What is extrusion? Classify it and explain any two with neat sketch.	07
OR		
Q.3	(a) What are chills? State their functions?	03
	(b) Explain working of quick acting nut.	04
	(c) Describe 3-2-1 locating principle with suitable sketch.	07
Q.4	(a) Write down difference between Hot Rolling & Cold Rolling.	03
	(b) Explain TIG welding.	04
	(c) Illustrate EDM machine with suitable sketch along with its advantages and application.	07
OR		
Q.4	(a) State the use of simple die, compound dies and combination die.	03
	(b) Compare the similarities & difference between ECM & EDM.	04
	(c) What are drill bushes? Describe any one drill bush with help of neat sketch.	07
Q.5	(a) Write about jigs and give names of jigs.	03
	(b) Explain investment casting process with neat sketch. State its advantages and applications	04
	(c) Explain CUPOLA Furnace with a neat sketch.	07

OR

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| Q.5 | (a) | What are the difference between TIG and MIG? | 03 |
| | (b) | Give difference between riveting, welding, soldering and welding. | 04 |
| | (c) | Explain Ultrasonic Machining process with neat sketch. | 07 |
