

Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Code:2141908

Date:05-07-2024

Subject Name:Manufacturing Processes -II

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.

		MARKS
Q.1	(a) Differentiate hot working process and cold working process.	03
	(b) Discuss various factors considered for the selection of manufacturing process.	04
	(c) Distinguish GTAW and GMAW welding Processes.	07
Q.2	(a) What is core? Discuss different functions of core.	03
	(b) What are the different additives and binders used in moulding sand?	04
	(c) State the principle of centrifugal casting and explain centrifugal casting with neat sketch and its applications.	07
	OR	
	(c) Write a short note on cupola furnace.	07
Q.3	(a) Discuss functions of flux used in welding process.	03
	(b) Discuss difference between Split pattern and Sweep pattern with neat sketch and their applications.	04
	(c) Explain oxy acetylene gas welding process with its applications.	07
	OR	
Q.3	(a) Draw a detail classification chart of welding process	03
	(b) What is soldering? Enlist different types of soldering filler wires.	04
	(c) Briefly describe submerged arc welding process with neat sketch.	07
Q.4	(a) Explain Ingot, Bloom and Billet	03
	(b) Enlist and draw different types of rolling stand arrangement (rolling mills).	04
	(c) Write a short note on closed die forging process.	07
	OR	
Q.4	(a) Briefly explain tube drawing process.	03
	(b) Discuss direct extrusion process with neat sketch.	04
	(c) What is defect? Discuss various forging defects.	07
Q.5	(a) What are the raw materials used in glass products?	03
	(b) Write a brief note on glass processing.	04
	(c) Explain in details metal matrix and ceramic matrix composite.	07
	OR	
Q.5	(a) What are the characteristics of engineering ceramics?	03
	(b) Discuss applications of composite material.	04
	(c) Distinguish thermoplastic and thermosetting plastic.	07
