

GUJARAT TECHNOLOGICAL UNIVERSITY**BVOC - SEMESTER-IV EXAMINATION – SUMMER 2022****Subject Code:1140304****Date:08-07-2022****Subject Name:Non-conventional Machining****Time:10:30 AM TO 12:30 PM****Total Marks:50****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) Give comparison between Conventional and Non-conventional machining.	05
	(b) What are the limitations of conventional machining & give the reasons for choosing Non-Convectional Machining processes?	05
Q.2	(a) Explain Construction and working of Ultrasonic Machining (USM).	05
	(b) Explain Construction and working of Electrochemical Machining (ECM).	05
OR		
	(b) Give advantages and limitations of Electrical Discharge Machining.	05
Q.3	(a) Explain Construction and working of Electrical Discharge Machining (EDM).	05
	(b) Explain with neat sketch ultrasonic welding process.	05
OR		
Q.3	(a) Explain Construction and working of Abrasive jet machining (AJM).	05
	(b) Write advantages and disadvantages of ultrasonic welding process.	05
Q.4	(a) Explain with neat sketch electron beam welding.	05
	(b) Explain with neat sketch laser beam welding process.	05
OR		
Q.4	(a) Explain with neat sketch plasma arc welding.	05
	(b) Write advantages and disadvantages of electron beam welding.	05
Q.5	(a) What is Metalizing (Coating). Explain metalizing process.	05
	(b) Give advantages and disadvantages of explosion forming process.	05
OR		
Q.5	(a) What are the benefits of metalizing process?	05
	(b) Explain with neat sketch electromagnetic forming process.	05
