Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER-I(New course) • EXAMINATION - WINTER- 2015

Subject Code: 2715003 Date: 04/01/2		16	
Subject Name: Advance Manufacturing Processes Time: 2:30 pm to 5:00 pm Instructions: Total Mark		70	
		Attempt all questions. Make suitable assumptions wherever necessary.	
Q.1	(a) (b)	Derive the equation for interelectode gap for equilibrium condition in ECM. How non conventional machining differs from convectional machining? Give your comment.	07 07
Q.2	(a) (b)	Write and explain important process parameters of AJM and also effects of variables on MRR. Distinguish between EDM and LBM on the basic of 1). Working principle, 2). Tool used 3). Accuracy, 4). Applications. OR	07 07
	(b)	Explain with neat sketch AWJM and Its advantages.	07
Q.3	(a) (b)	Explain Squeeze casting process and its advantages. Write merit and demerit of advanced casting process over conventional casting process.	07 07
Q.3	(a) (b)	OR Write short note on Evaporative pattern casting process and its application. What are the advantages of metal mold casting process over sand mold casting process?	07 07
Q.4	(a) (b)	Enlist the advantages and disadvantages of ultrasonic welding. With neat sketch laser beam welding process. OR	07 07
Q.4	(a) (b)	Explain the working principal of EBM. Explain explosive forming process and stated its advantages.	07 07
Q.5	(a)	Enlist methods of stretch forming processes. Explain applicability, advantages	07
	(b)	and limitation of stretch forming processes. Write short note on Contour roll forming process. OR	07
Q.5	(a)	How HERF process is different from conventional forming processes. Explain	07
	(b)	its working principal. Explain the Electro hydraulic forming. What are its characteristics and advantages?	07
