Seat No.:	Enrolment No
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016				
	•	Code: 2722802 Date: 24/05/20 Name: ADVANCE WELDING TECHNOLOGY	16	
Tir	•	2:30 am to 01:00 pm Total Marks:	70	
		Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.		
Q.1	(a) (b)	Discuss in detail about Inspection and Testing of Welding Joints. State factors to be considered for selecting a welding power source. Also explain how the power source influences welding quality?	07 07	
Q.2	(a)	What is arc blow? Explain the causes and effects of arc blow on the welding	07	
	(b)	process. What are the remedies available to control arc blow? Explain function of flux in welding. Also discuss its types and selection criteria for different applications.	07	
		OR		
	<b>(b)</b>	Classify electrodes and discuss electrode code with suitable example. Describe electrode selection procedure in detail.	07	
Q.3	(a) (b)	What is weldability? Discuss the parameter affects weldability of a material. Discuss about the safety aspect of various welding processes. List various safety equipment and accessories used during welding processes.  OR	07 07	
Q.3	(a) (b)	How heat flow is useful for the selection of welding parameters? Discuss. õAutomation of welding process improves welding qualityö justify the statement.	07 07	
Q.4	(a) (b)	Explain use and importance of Schaeffler's diagram in welding process.  Why pre-heating is required in welding process? Discuss with suitable example.  OR	07 07	
Q.4	(a) (b)	What is WPS, WPQ and PQR? What is the need of all these documents? Why distortion observed after welding a workpiece? Discuss various reason for the same and methods to prevent distortion.	07 07	
Q.5	(a)	List various modern welding processes and describe application of any one	07	
	(b)	process in detail.  List various welding joint configurations and explain application of each with suitable example.	07	
0.5	(a)	OR List the welding process used for welding of ceramics and explain in detail.	07	
Q.5	(a) (b)	Explain in detail the process of underwater welding. Give its applications.	07 07	