

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (NEW) EXAMINATION – WINTER 2017

Subject Code: 2181927

Date: 15/11/2017

Subject Name: Advance Welding Technology(Department Elective III)

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.

		MARKS
Q.1	(a) Give detail classification of welding processes.	03
	(b) Explain different welding positions with neat sketch.	04
	(c) Explain Gas Metal Arc Welding with neat sketch.	07
Q.2	(a) Define Weldability. And draw primary welding symbols.	03
	(b) Draw Fe-C & CC-T diagram.	04
	(c) Draw and explain T.T.T diagram.	07
	OR	
	(c) Enlist Welding Defects and explain each with neat sketch.	07
Q.3	(a) Explain construction of welding symbols with neat sketch.	03
	(b) Explain TIG welding with neat sketch.	04
	(c) Discuss Metallurgical effects of welding.	07
	OR	
Q.3	(a) Explain design Guide lines for sound welding joint.	03
	(b) Explain Thermit welding.	04
	(c) Explain thermal effects of welding on parent metal and its mechanical properties.	07
Q.4	(a) Write difference between soldering & brazing.	03
	(b) Explain Stud welding process with advantages and limitations.	04
	(c) Explain Structural welding code.	07
	OR	
Q.4	(a) Explain explosive welding with neat sketch.	03
	(b) What is API standard & ASTM standard?	04
	(c) Explain ASME Code for Boiler and Pressure Vessel.	07
Q.5	(a) What is Weld Cracking and explain types of Weld Cracking.	03
	(b) Explain Electron Beam Welding.	04
	(c) Enlist various NDT methods and explain Radiographic inspection method.	07
	OR	
Q.5	(a) Discuss the Factors affecting the selection of welding joint.	03
	(b) Explain Friction Welding with neat sketch. State its benefits and limitations.	04
	(c) Explain Ultrasonic Inspection method for Weldment with neat sketch.	07
