Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII EXAMINATION - SUMMER 2016

Subject Code:170104		Code:170104 Date:18/05/201	Date:18/05/2016	
Tir	ne:02 cruction 1. 2.	t Name:Rocket & Missile Configurations Design 2:30 PM to 05:00 PM Ons: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	70	
Q.1	(a) (b)	Explain Optimum Bias in Outage control. Explain with neat sketch and graph of AIR TO AIR MISSILE.	07 07	
Q.2	(a) (b)	With neat sketch explain Dorsal design and Wing control. Explain Force resolution for Aerodynamic characteristics of Airframe components.	07 07	
	(b)	OR Explain flow past a wedge and cone for conical forebody.	07	
Q.3	(a) (b)	Make a relation between mixture ratio loaded and mixture ratio burned. Explain ground launch.	07 07	
Q.3	(a) (b)	OR Write a short note on Propellant inventory. Explain Semivertex angle vs. length diameter ratio for cones and ogives.	07 07	
Q.4	(a) (b)	Explain Base Pressure for Aerodynamic characteristics of Airframe components. Write a short note on Aspect ratio with neat sketch. OR	07 07	
Q.4	(a) (b)	Explain Induced Drag and Interference Drag. Explain Pressure Drag for Missile performance.	07 07	
Q.5	(a) (b)	Explain Aerodynamic Controls. Write a short note on Flat turns and pull-ups for maneuvering flight. OR	07 07	
Q.5	(a) (b)	Write a Short note on Long range cruise trajectory. Explain Liquid Fuels for liquid propellant.	07 07	
