Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- VII• EXAMINATION-SUMMER 2015

Subject Code: 170104 Subject Name: Rocket & Missile Configurations Design		Name: Rocket & Missile Configurations Design	Date:04/05/2015	
	tructio	Attempt all questions. Make suitable assumptions wherever necessary.	70	
Q.1	(a) (b)	What is Missile? Explain with neat sketch types of missiles. Write a short note on design and control for missile configuration design.	07 07	
Q.2	(a) (b)	Explain with brief discussion "Conical Forebody". Write a short note on Boattail.	07 07	
	(b)	OR Make a Relationship between mixture ratio loaded and mixture ratio burned for volume verses mass loaded.	07	
Q.3	(a)	Define Aspect Ratio. Explain Tip effects on an Airfoil.	07	
	(b)	Write a short note on Cruciform and Monowing. OR	07	
Q.3	(a) (b)	What is Pressure drag? Explain Induced drag. What are the different approaches in solving the geysering? Explain any one approach.	07	
Q.4	(a) (b)	Discuss Wing Planform for missile configuration design. Which are the desired physical properties of solid propellant? OR	07 07	
Q.4	(a) (b)	Which are the desired physical properties of liquid propellant? Explain Long range cruise trajectory with neat sketch.	07 07	
Q.5	(a) (b)	Write a note on free flight dispersion. Write a short note on Loading measurement and control.	07 07	
Q.5	(a) (b)	OR Discuss the ingredients of solid propellant. Write a short note on liquid propellant combustion process with three different zones.	07 07	
