

Model Question Paper

USN

--	--	--	--	--	--	--	--	--	--

Sixth Semester B.E. Degree Examination BAE613C-Guidance and Navigation

TIME: 03 Hours

Max. Marks: 100

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module – 1			Marks	CO	RBTL
Q.1	(a)	Briefly explain the concept of guidance, navigation and control.	10	1	2
	(b)	Illustrate air data information and its significance in guidance and navigation system.	10	1	2
OR					
Q.2	(a)	Explicate the working of pulse doppler radar with the relevant block diagram.	10	1	2
	(b)	Elucidate moving target detector with the help of block diagram.	10	1	2
Module – 2					
Q.3	(a)	With the help of block diagram expound the working of mono pulse tracking for single angle coordinate system.	10	2	2
	(b)	Describe sequential lobbing method of tracking in RADAR.	10	2	2
OR					
Q.4	(a)	Discuss about inertial navigation system and its components in detail.	10	2	2
	(b)	Write short notes on i) Imaging infrared guidance ii) Satellite Navigation	10	2	2
Module – 3					
Q.5	(a)	Define transfer function. Obtain the transfer function for closed and open loop control system.	10	2	3
	(b)	Mention the differences between open and closed loop system.	10	2	3
OR					
Q.6	(a)	Interpret the principle of roll stabilization system used in missile with a neat sketch.	10	1	2
	(b)	Explain the missile autopilot system with a neat diagram.	10	1	2

Module – 4					
Q.7	(a)	Elucidate proportional navigation guidance and its types in detail.	10	2	3
	(b)	Illustrate command guidance and its types in detail.	10	2	3
OR					
Q.8	(a)	Explicate the comparison of guidance system performance.	10	2	2
	(b)	Discuss about bank to turn missile guidance with the neat sketch.	10	2	2
Module – 5					
Q.9	(a)	Expound director fire control system with a block diagram.	10	3	2
	(b)	Describe tracking control laws in detail.	10	3	2
OR					
Q.10	(a)	With a neat sketch interpret the longitudinal flight control system.	10	3	2
	(b)	Explain lateral flight control system with the block diagram.	10	3	2