GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Engineering

B.TECH Electronics and Communication Engineering
Semester End Examination - Nov 2023

Duration : 180 Minutes
Max Marks : 100

Sem VII - BECE4404 - Radar Guidence and Navigation

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Explain how the Doppler effect is used to determine velocity of targets in Radar systems?	K1	(2)
2)	Define the duty cycle of a pulse train and state its importance in a pulse radar system.	K2	(4)
3)	Discuss about the internal Fluctuation of clutter which limits the performance of MTI radar.	K2	(6)
4)	Describe any of two types duplexers used in radar receivers.	K3	(9)
5)	Explain the relation between Radar range resolution and the signal Bandwidth with relevant equation.	K3	(9)
6)	Explain how the unambiguous range can be selected with proper pulse repetition frequency.	K5	(10)
7)	How an MTI delay line canceller can be treated as a transversal filter?	K4	(12)
8)	What is relation between the radiation pattern and current feed pattern in a phased array radar?	K5	(15)
9)	Define pulse doppler radar.	K5	(15)
10)	Describe sequential lobbing type of error signal generation to track atarget automatically.	K6	(18)