

Roll No.

Total Pages : 2

BT-8/M-13

8811

RADAR ENGINEERING

Paper-ECE-404-E

Time Allowed : 3 Hours]

[Maximum Marks : 100

Note : Attempt five questions in all, selecting at least one question from each Unit.

UNIT-I

- 1. Find the relation between transmitted power and range in radar. 20
- 2. Write short notes on the following :
 - (a) Minimum detectable signal for radar receiver. 7
 - (b) Propagation effects in relation to radar receiver. 7
 - (c) System losses in radar. 6

UNIT-II

- 3. With suitable block diagram, explain the working of Non-coherent M.T.I. and pulse doppler radar. 20
- 4. With suitable block diagram, explain the working of frequency modulated CW radar and multiple frequency CW radar. 20

UNIT-III

- 5. What do you understand by acquisition of target? Explain the various methods of antenna scanning. 20

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- 6. Write short notes on the following :

- (a) Monopulse tracking radar. 10
- (b) Tracking in range. 10

UNIT-IV

- 7. For what purpose we are using duplexer? Explain basic operations and requirements of duplexer. Also explain various type of duplexers used in radar system. 20
- 8. Write short notes on the following :
 - (a) Radar displays
 - (b) Receiver protectors in Radar system. 10x2=20

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2