BT-8/M-20   38145

RADAR ENGINEERING

Paper–ECE-422-N

Option-I

Time Allowed : 3 Hours]   [Maximum Marks : 75

Note : Attempt **five** questions in all, selecting at least **one** question from each Unit. All questions carry equal marks.

UNIT–I

1. What do you understand by Radar? What are its applications? Explain its working operation with the help of a Block diagram.   15

2. (a) Derive simple form of Radar equation. Comment to minimum detectable signal.   10

 (b) What are propagation effects in Radar?   5

UNIT–II

3. What is Doppler effect? Differentiate between CW and FM-CW radars.   15

4. What is MTI Radar? What are limitations of MTI performance? Explain MTI from a moving platform.   15

UNIT–III

5. What do you mean by Tracking? Explain two popular types of tracking used in Radar operation. **15**

6. Explain monopulse tracking Radar in detail. **15**

UNIT–IV

7. (a) Define Noise figure? Describe its use in Radar receivers. **10**

   (b) Explain Radar displays. **5**

8. Explain radar duplexers and receiver protectors in detail. **15**