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MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
(Autonomous Institution – UGC, Govt. of India)
IV B.Tech - II Semester Supplementary Examinations, April 2023
Radar Systems
(ECE)

Roll No										

Time: 3 hours   **Max. Marks: 70**

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

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SECTION-I

1   Derive the Radar Range equation and explain the factors on which it depends.   **[14M]**

OR

2   Explain in detail various system losses involved in Radar system   **[14M]**

SECTION-II

3   Explain in detail about Doppler effect and List the applications of CW radar system.   **[14M]**

OR

4   Discuss about the Multiple Frequency CW Radar and explain where it can be employed.   **[14M]**

SECTION-III

5   Draw the block diagram of MTI radar using range gates and filters and explain each block   **[14M]**

OR

6   Explain the operation of a two- coordinate Amplitude comparison mono pulse Tacking Radar   **[14M]**

SECTION-IV

7   Derive the matched filter characteristics   **[14M]**

OR

8   Explain the expression for frequency response of the matched filter with Non White noise   **[14M]**

SECTION-V

9   Explain different types of displays in detail.   **[14M]**

OR

10   Explain how beam width of a phase array antenna will vary with steering angle**?**   **[14M]**