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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech IV Year II Semester Advanced Supplementary Examinations Oct-2020

RADAR & NAVIGATIONAL AIDS

(Electronics & Communication Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1 Explain the different probability density functions and calculate the mean and variance of Gaussian probability density functions. **12M**

OR

2 a Explain modified radar range equation. **7M**

b Explain about the radar cross section of simple targets. **5M**

UNIT-II

3 a Describe the two RADAR modulators for high power transmission. **7M**

b Explain about the various types of displays. **5M**

OR

4 a Explain about conversion loss and noise figure in detail. **7M**

b Explain in detail about limiters. **5M**

UNIT-III

5 a Explain with a block diagram of FM CW altimeter. **7M**

b Explain with a neat diagram about sequential lobing. **5M**

OR

6 Explain with a neat block diagram of conical scan tracking radar. **12M**

UNIT-IV

7 a Write short notes on radio detection finding and radio ranges? **7M**

b Explain the errors arising in direction finders. **5M**

OR

8 a Explain the four course radio ranges in determining the errors in the Navigation. **8M**

b Explain about the VOR receiving equipment. **4M**

UNIT-V

9 a Explain about the decca navigation system. **7M**

b Write short notes on Loran-B system? **5M**

OR

10 a How the TACAN STACAN equipment used to navigate the RADAR? **8M**

b Write short notes on DME operation **4M**

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