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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ETE)/(ECE) (2011 Onwards) (Sem.-6)

**MICROWAVE AND RADAR ENGINEERING**

Subject Code : BTEC-601

M.Code : 71121

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A**

1. Answer briefly :

- a) Conventional tubes
- b) PIN
- c) Phase shifter
- d) SWR
- e) Radar range ambiguities
- f) Blind speed
- g) Range tracking system
- h) Doppler velocity determination
- i) Matched termination
- j) CW radar

### SECTION-B

2. Write a note on TWT microwave tube.
3. Describe various ferrite devices in detail.
4. Explain the principle and operation of MTI radars.
5. Describe PRF with the help of diagram.
6. How can the microwave components be analyzed using s-parameters?

### SECTION-C

7. Write a note on Microwave bridges.
8. Define scanning. Describe different types of scanning techniques.
9. Explain MASER in detail. Also write its advantages and disadvantages.

**NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC against the Student.**