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Roll No .....

**MEMT - 301(A)**

**M.E./M.Tech., III Semester**

Examination, December 2014

**Microwave Measurements (Elective - I)**

*Time : Three Hours*

*Maximum Marks: 70*

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) Discuss briefly about the microwave detectors.  
b) Explain how to measure VSWR and Transmission line impedance.
2. a) What is the effect of detection law on VSWR measurement?  
b) Discuss the principle working of VSWR meter.
3. a) Discuss briefly about the s-parameters of the network.  
b) Discuss the principle working of Bolometer.
4. a) What are the electronic methods for measuring microwave frequency?  
b) Discuss briefly about the principle working of microwave counters.
5. a) How to measure high, medium and low microwave power?  
b) Discuss the principle working of Microwave attenuator.

6. Explain briefly the following microwave components
  - a) Phase shifters
  - b) Directional couplers
7. a) Explain how to measure antenna pattern and antenna impedance.  
b) Explain briefly about the near field and far field errors.
8. Write short notes on any two of the following
  - a) Slotted line
  - b) Calorie meters
  - c) Anechoic chambers.

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