

3723

B.Tech (Electronic & Communication Engineering)
8th Semester G-Scheme
Examination, July-2022
MICROWAVE THEORY & TECHNIQUE
Paper- PCC-ECE-404 G

Time allowed : 3 hours *[Maximum marks : 75]*

Note : The students have to attempt five questions in total first being compulsory and selecting one from each unit. 2.5×6=15

1. (a) What are Microwaves.
- (b) What are Planar Transmission Lines.
- (c) Explain phase shifters.
- (d) Explain any one method for frequency measurement.
- (e) What is GPS.
- (f) Explain RADAR.

Unit-I

2. Explain TM mode propagation in a Rectangular Waveguide. 15
3. Why TEM mode is not able to propagate in a Rectangular Waveguide. 15

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Unit-II

4. Explain construction and working of Isolator. 15
5. What are S-parameters and S-Matrix. Also explain properties of S-Matrix. 15

Unit-III

6. (a) Describe Tunnel Diode. 8
- (b) What are Parametric Amplifiers. 7
7. Explain SWR measurement Techniques. 15

Unit-IV

8. Explain Terrestrial and Satellite Communication in detail. 15
9. (a) Explain Civil & Medical application of Microwaves. 8
- (b) Describe Monolithic Microwave ICs. 7