

Microwave Engg (6th sem-Sec 1& 2)

Minor-1

Max Marks:30

1. Explain faraday rotation. Describe the operating principle of Isolator
(5)
2. (a) Explain the working principle of attenuators and phase shifters (5)
(b) H-plane tee is called a 3-dB splitter. Justify the statement with the help of a scattering matrix.
(5)
3. Explain the applications of Magic Tee (5)
4. (a) In a setup for measuring impedance of a reflectometer, what is the reflection coefficient when the outputs of two couplers are **2mw** and **0.5mw** respectively? (5)
(b) Why hybrid E-H plane tee referred to as Magic Tee .A 20 mV signal is fed to the E-arm of a lossless magic tee junction. Calculate the signal strength appearing to each port when all other ports are matched. (5)