Subject : Microwave Engineering

Note. Attempt all questions

- 1. what are Coplaner TL.
- 2. write similarities & dissimilarities between waveguides and 2-wire transmission line.
- 3. what are Micro strip TL.
- 4. what are the field components in Rectangular waveguides.
- 5. Calculate cutoff frequency of a waveguide . Explain it as High pass Filter in a wave guide.
- 6. what is Group Velocity, Guide Wavelength and Phase Velocity.
- 7. Explain circular waveguides.
- 8. Explain Two Cavity Klystron in microwave devices.
- 9. What do you mean by TWT ?
- 10. What is Reflex Klystron.
- 11. Give applications of microwave tubes.
- 12. What are conventional active devices.
- 13. What are isolators and phase shifters.

14. What is Faraday Rotation?

- 15. Explain s-parameter analysis.
- 16. Define Isolators & Circulators.
- 17. What are Microwave Hybrid Circuits?
- 18. Write short note on Hybrid Couplers.

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- 20. What is Microwave Engineering?
- 21. Define s-matrix and its properties?
- 22. Write the applications of microwave engineering?
- 23. Why is s-matrix used in MW analysis?
- 24. What are the advantages of ABCD matrix?
- 25. What are junctions ? Give some example
- 26. What are non-reciprocal devices ?Give two examples?
- 27. What are the applications of reflex klystron?
- 28. What is the purpose of slow wave structures used in TWT amplifiers?
- 29. Give two examples for two port junctions.