

CU 5191 Advanced Radiation Systems

Important 2 Marks Questions

Unit I

1. Define directivity of an antenna.
2. What is the importance of radiation resistance of an antenna?
3. Define polarization of an antenna.
4. What is the function of balanced and unbalanced transformer?
5. Define induction field of an antenna.
6. What is meant by power gain of an antenna?
7. State duality theorem.
8. What are the types of adaptive base station antenna options?
9. What are the two methods of operation in helical antenna & compare it.
10. What are the different types of matching techniques?

Unit II

1. What are the applications of aperture antennas?
2. Define Huygen's principle.
3. What are the applications of slot antennas?
4. Define Fermat's principle.
5. Describe the concept aperture.
6. What are the merits of offset feed reflector antenna?
7. Give the significance of field equivalent principle.
8. State Babinet principle.
9. What is slot antenna? Give examples.
10. Write is the principal of reflector antenna?

Unit III

1. What is the function of frequency scanned arrays?
2. List any two advantages of MEMS technology in phased array.
3. What is meant by pattern multiplication?
4. What are papered arrays?
5. Distinguish end fire and broad side array.
6. Write down the advantages of linear array antenna.
7. What is the significance of side lobe level?
8. What is feed network for phased array antenna?
9. What is the need for phase shifter in phased array antennas?
10. Compare Binomial and Chebyshev distributions.

Unit IV

1. Sketch the equivalent circuit of microstrip antenna.
2. What are the applications of microstrip antennas?
3. Why microstrip antenna arrays are preferred for space applications?
4. What is the radiation mechanism of microstrip dipole antenna?

5. What is ring antenna? Give its design specifications.
6. What are the excitation techniques used in patch antennas?
7. What is meant by figure of merit of an antenna?
8. What are the types of feeding mechanism?
9. What are the types of feed network?
10. Draw the transmission line model of rectangular patch antenna.

Unit V

1. Define bandwidth applicable for UWB antenna.
2. What are the features of anechoic chamber?
3. What is an antenna free space range and what are its types?
4. What is the importance of EMC testing?
5. What are the drawbacks in measurements of antenna parameters?
6. Write the design equations of biconical antenna.
7. What are the types of anechoic chamber design?
8. What is a frame?
9. What are types of anechoic chamber?
10. What are the antenna test range types?