

46259

BT-6/M-24
ANTENNAS AND PROPAGATION
Paper-ECP-6A

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt any *five* questions by selecting at least *one* from each unit.

UNIT-I

1. Explain the various terms used in antenna :
 - (i) Directive Gain.
 - (ii) Power Gain.
 - (iii) Directivity.
 - (iv) Beam width.
 - (v) Antenna Temperature. (15)
2. Find the expression of radiated fields by Hertzian Dipole antenna. (15)

UNIT-II

3. Find the expression of radiated fields Due to N element antenna array. Also find the condition for maximum radiation for N element antenna array. (15)
4. Write short notes on :
 - (i) Yagi-Uda Antenna.
 - (ii) Turnstile Antenna.
 - (iii) Loop Antenna. (15)

UNIT-III

5. Write short notes on :
- (i) Horn antenna.
 - (ii) Reflector antenna. (15)
6. Explain Advantages and basic Configurations of Patch antenna. Also explain different feeding techniques of Patch antenna. (15)

UNIT-IV

7. Write short notes on :
- (a) Maximum usable frequency.
 - (b) Fading.
 - (c) Skip distance.
 - (d) Virtual height. (15)
8. Explain various techniques of radio wave propagation. (15)

EXAMKIT