

Bharati Vidyapeeth's College Of Engineering For Women
Department of Electronics & Telecommunication Engineering

WAVE THEORY & ANTENNAS

CLASS TEST-I

[20010- 11]

Max. Marks-25

Time- 1Hrs

Q.1. Explain the following parameters of antenna

[20-Marks]

- 1] Radiation pattern
- 2] Antenna efficiency
- 3] Directivity
- 4] Beam width
- 5] Radiation Intensity

Q.4 Write a short note on

[10-Marks]

- 1] Yagi-uda antenna
- 2]Horn antenna

OR

The radiated power density of radial componenet of antenna is given by

Determine the total radiated power

[10-Marks]

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CLASS TEST-II

[20010- 11]

Max. Marks-25

Time- 1Hrs

Q.1 A] Derive & Explain fundamental equation for free space propagation [8-Marks]

B] Draw the different layers presents in ionosphere and explain [7-Marks]

OR

Q.2 A] Explain the following terms in details [8-Marks]

- 1] Virtual Height
- 2] Skip distance
- 3] MUF

B] Explain the space wave propagation with neat sketches [7-Marks]

Q.3] Write a short note on any three [15-Marks]

- A] Broad side Array
- B] End-fire Array
- C] Parabolic Reflector array
- D] Microstrip antenna

Unit Test-1

Wave Theory and Antenna

Marks:30

1. Explain any Five terms (15)
 - a) Radiation Pattern
 - b) Radiation Power Density
 - c) Radiation Intensity
 - d) Directivity
 - e) Antenna Efficiency
 - f) HPBW

2. Write Short Notes on any Three (15)
 - a) Yagi Uda Antenna
 - b) Microstrip Antenna
 - c) Helical Antenna
 - d) Virtual Height
 - e) Skip Distance
 - f) MUF