

T. E. Semester VI (CBCGS) - E&TC
MOCK Paper
ARWP (ECC603)

1. Which material is preferred to fabricate the microstrip antenna?
 - a) $\epsilon_r = 20$
 - b) $\epsilon_r < 4.4$
 - c) $\epsilon_r = 15$
 - d) $\epsilon_r = 50$

2. End fire antenna having direction of maxima along
 - a. Array axis
 - b. Perpendicular to axis
 - c. 45 degree
 - d. 90 degree

3. When the radiation resistance of the antenna matches the characteristic impedance of the transmission line?
 - a) No transmission occurs
 - b) No reception occurs
 - c) SWR is maximum
 - d) SWR is minimum

4. The radiation pattern of a half-wave dipole has the shape of a _____
 - a) Doughnut
 - b) Sphere
 - c) Hemisphere
 - d) Circular

5. What is the beam width for a half wave dipole antenna?
 - a) 90°
 - b) 180°
 - c) 50°
 - d) 250°

6. What does the beam width of an antenna tell us?
 - a) Signal strength
 - b) Signal power
 - c) Directivity
 - d) Degradation

7. What is the polarization of helical antenna in axial mode?
 - a) Linearly Polarized
 - b) Elliptical polarized

- c) Circularly polarized
- d) LHCP

8. What is the radiation resistance of the folded dipole antenna?

- a) 50Ω
- b) 100Ω
- c) 300Ω
- d) 20Ω

9. Radiation resistance is defined as

- a) Physical resistance
- b) Virtual resistance
- c) Wire resistance
- d) None of the above

10. In a Yagi Uda antenna, the conductors that are not connected to the transmission line is called as?

- a) Driven element
- b) Parasitic elements
- c) Extra elements
- d) Array elements

11. Half power point is defined as

- a) 3 dB point
- b) 5 dB point
- c) 10 dB point
- d) 2 dB point

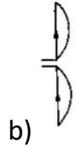
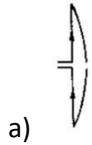
12. Frequency that is reflected by ionosphere at vertical incidence is defined as

- a) critical frequency
- b) MUF
- c) LUF
- d) OF

13. Find the radiation resistance of a half dipole whose overall length is $\lambda/2$

- a) 73 ohms
- b) 36 ohms
- c) 316 ohms
- d) 0.316 ohm

14. Which is current distribution for $\lambda/2$ dipole antenna from following



15. If the diameter of a $\lambda/2$ dipole antenna is increased from $\lambda/100$ to $\lambda/50$ then its

- (a) Bandwidth increases
- (b) Bandwidth decreases
- (c) Gain increases
- (d) Gain decreases

16. Power density is basically termed as _____ power per unit area

- a. Reflected
- b. Refracted
- c. Radiated
- d. Diffracted

17. Under which conditions of charge does the radiation occur through wire antenna?

- a. For a charge with no motion
- b. For a charge moving with uniform velocity with straight & infinite wire
- c. For a charge oscillating in time motion
- d. All of the above

18. How are the infinitesimal dipoles represented in terms of antenna length and signal wavelength?

- a. $l \leq (\lambda / 50)$
- b. $(\lambda/50) < l \leq (\lambda / 10)$
- c. $l = \lambda/2$
- d. $l = \lambda$

19. In an electrically small loops, the overall length of the loop is _____ one-tenth of a wavelength.

- a. Less than
- b. Equal to

- c. Greater than
- d. Not equal to

20. Cassegrain feed is used with a parabolic reflector to

- (A) increase the gain of the system
- (B) increase the bandwidth of the system
- (C) reduce the size of the main reflector

(D) allow the feed to be placed at a convenient point

21. Directivity of antenna having beam area 2π

- a) 2
- b) 1
- c) 2.5
- d) 1.5

22. Radiation Pattern is defined as

- a) distribution of power intensity with spherical coordinate
- b) distribution of Power density with spherical coordinate
- c) Beam area
- d) Angular distance

23. Cutoff frequency is sharply defined in

- a) Binomial filter
- b) Chebyscheff filter
- c) Equiripple filter
- d) None of these

24. Frequency at which attenuation is maximum in ionosphere called as

- a) Gyro frequency
- b) Critical frequency
- c) MUF
- d) OF

25. Skip distance is defined as

- a) Minimum possible distance between transceiver
- b) Maximum possible distance between transceiver
- c) Distance at which reflection from ionosphere
- d) Distance at which radiation from ionosphere

26. For UHF band earth act as a

- a) Perfect electric conductor
- b) Leaky capacitor
- c) Loss medium
- d) Resistive

27. for what frequency Microstrip patch antenna is used

- a) Microwave frequency
- b) VHF frequency
- c) MF
- d) HF

28. One steradian is equal to

- a) 360 Square degree
- b) 180 Square Degree
- c) 3283 Square Degree
- d) 41253 Square degree

29. When pitch angle of helical antenna is 90 then helix become a _____

- a) Loop antenna
- b) Dipole antenna
- c) Folded dipole
- d) Linear wire

30. The feed element in parabolic reflector is placed at a distance

- a) less than focal length
- b) greater than focal length
- c) twice the focal length
- d) equal to the focal length

