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FUNDAMENTALS OF MICROWAVE COMMUNICATION EXAMINATION

Module/SubCourse: SS0345 Edition: 6

Instructions	<p>The final examination contains multiple-choice questions covering all lessons. This is an <i>open-book</i> exam--you may use the text to find answers.</p> <p>To take the examination, follow these steps:</p>
Step	Action
1	Review each question thoroughly before selecting a response.
2	Point and click on the response you think is correct. <u>Note:</u> You may select only one answer for each question.
3	Check your answers. Once you submit your exam with all answers marked, you can't retrieve it for changes.
4	Point and click on the Submit button at the bottom of the exam. Your examination answers will be forwarded to the Army Institute for Professional Development for action. You will receive intermediate results by e-mail. Final results will be sent to you by surface mail.
5	If you cannot finish the exam in one session you will be given the option to save your exam temporarily. Simply click the submit button then click save. You will have 10 days to complete your exam for grading. The next time you login your exam will be automatically loaded with the responses you have previously marked.

1. What is considered the velocity of a radio wave?

Constant
Varying
Diminishing
None of the above

2. What does the full radiation pattern in a three dimensional field resemble?

Square
Doughnut
Cone
Rectangle

3. What agency is part of transmission security?

ELSEC
ELMSEC
MOMSEC
SAGSEC

4. Where does the splitting of molecules into positive and negative charges begin?

Stratosphere
Earth surface
Ionosphere
Troposphere

5. What is the rotating electromagnetic field called as it travels through space?

Cross polarization
Elliptical polarization
Horizontal polarization
Vertical polarization

6. What may a moving radio wave be called?

Electromagnetic field
Electric field
Magnetic field
None of the above

7. What purpose does the parabolic reflector serve?

Decreases antenna gain.

Increases antenna gain.
Stops antenna gain.
All of the above.

8. What type of frequency will you have when the wavelength is long?

Longer
Higher
Shorter
Lower

9. What types of polarization are more efficient when used over sea water at frequencies below 100 MHz?

Elliptical polarized
Horizontal polarized
Vertical polarized
Cross-polarized

10. What are the frequencies used in microwave systems?

2000 MHz and above
50 MHz and above
300 MHz and above
1000 MHz and above

11. What device will control the flow of electric current?

Battery
Telegraph key
Motor
Wire

12. What is the prime requirement for good communications?

No S/N ratio.
High S/N ratio.
Low S/N ratio.
None of the above.

13. Where is inverse bending fading typically found?

Mountains
Water
Cities

Farms

14. In a 100-mile point-to-point system, what is the approximate reliability of the dual space diversity system?

- 99.9 percent
- 90.0 percent
- 10.7 percent
- 70.6 percent

15. Ionospheric scatter is useful at what frequency?

- 70 MHz
- 50 MHz
- 80 MHz
- 90 MHz

16. What does the receiver convert?

- DC to AC
- AC to AF
- AF to RF
- RF to AF

17. What is the purpose of the limiter?

- Eliminates amplitude variations.
- Eliminates the audio signal.
- Eliminates the FM signal.
- None of the above.

18. What limits the UHF bands that are used in microwave communication to approximately 30 miles?

- The power output.
- Radiation from the ground.
- The curvature of the earth.
- Resistance in the air.

19. Where are electromagnetic waves usually produced?

- Antenna
- Ground
- Transmitter
- Receiver

20. Which terminal controls all alignments?

- A
- D
- B
- C

21. What is the distance when refraction begins?

- 6 1/2 miles
- 2 1/2 miles
- 3 1/2 miles
- 12 1/2 miles

22. What is the size of the FM bandwidth compared with the AM bandwidth?

- Larger
- Same
- Smaller
- None of the above

23. What is the speed at which sound waves travel through air?

- 1,300 feet per second
- 1,100 feet per second
- 1,000 feet per second
- 1,200 feet per second

In accordance with [DA Pam 350-59](#), paragraph 1-30, I certify that the answers I submit are the result of my own work and that I have not had access to copies of answer sheets or solutions from others.

Pressing the submit button to process your examination is your assertion that the above statement is true.

missed question #22

96%