

MEDICAL ELECTRONICS

ASSIGNMENT 10 - ANSWER KEY

1. What circuit provides the initial selectivity in a receiver?

1 / 1 pt

Auto-graded

- Amplifier
- Attenuator
- Multiplexer

LC tuned circuits ✓

2. The ability to pick up weak signals by a receiver is called _____

1 / 1 pt

Auto-graded

- Gain
- Amplification

Selectivity ✓

Sensitivity

3. What type of receivers converts all incoming frequency into a lower frequency for better selectivity and sensitivity?

1 / 1 pt

Auto-graded

Analogous receivers

Superheterodyne receivers ✓

Digital receiver

Crystal receiver

4. What is the output of a mixer circuit?

1 / 1 pt
Auto-graded

- Sum of frequencies
- Difference of frequencies
- Sum and difference of frequencies ✓
- Multiplication of frequencies

5. What is connected between the antenna and the mixer to avoid oscillator radiation?

1 / 1 pt
Auto-graded

- LNA ✓
- Attenuator
- Duplexer
- Power amplifier

6. What type of oscillators are used to input a wide range of frequencies to the IF amplifier?

1 / 1 pt
Auto-graded

- LC oscillators
- Crystal oscillators
- Variable frequency oscillators ✓
- Diode oscillators

7. Standard intermediate frequency used for AM receiver is

1 / 1 pt
Auto-graded

- 455 MHz
- 455 KHz ✓
- 455 Hz
- None of the above

8. Time division multiplexing: Digital signal:: Frequency division multiplexing:?

1 / 1 pt
Auto-graded

Pulse code modulated signal

Continuous wave signals

Analog signal ✓

Pulse position modulated signal

9. What type of multiplexing is widely used in cellphones?

1 / 1 pt
Auto-graded

Time division multiplexing

Frequency division multiplexing

Code division multiplexing ✓

Spatial multiplexing

10. For frequency division multiplexing who defines the channel bandwidth?

1 / 1 pt
Auto-graded

FCC ✓

ARNIC

FAA

CCA

11. The transmission of multiple signals in a common frequency without interference is called _____

1 / 1 pt
Auto-graded

Time division multiplexing

Frequency division multiplexing

Code division multiplexing

Spatial multiplexing ✓

12. What is the individual carrier frequency of each signal called?

1 / 1 pt
Auto-graded

- Subcarrier ✓
- Frequency carrier
- Modulated carrier
- Coded carrier

13. Which of the following device is used to demultiplex the received signal?

1 / 1 pt
Auto-graded

- All pass filters
- Bandpass filters ✓
- Bandstop filters
- Differential filters

14. The system which uses FM for the subcarriers is called _____

1 / 1 pt
Auto-graded

- FM II system
- FM/FM system ✓
- FM/AM system
- 2 stage FM system

15. The process of recovering information signal from the received carrier is known as

1 / 1 pt
Auto-graded

- Detection ✓
- Modulation
- Demultiplexing
- Sampling

16. Analog signal may be converted into digital signal by

1 / 1 pt
Auto-graded

- Sampling ✓
- Amplitude modulation
- Filtering
- Mixing

17. Aliasing refers to

1 / 1 pt
Auto-graded

- Sampling of signals less than at Nyquist rate
- Sampling of signals greater than at Nyquist rate
- Sampling of signals at Nyquist rate ✓
- None of the above

18. The function of multiplexing is

1 / 1 pt
Auto-graded

- To reduce the bandwidth of the signal to be transmitted
- To combine multiple data streams over a single data channel ✓
- To allow multiple data streams over multiple channels in a prescribed format
- To match the frequencies of the signal at the transmitter as well as the receiver

19. The downlink frequency is lower than the uplink frequency.

1 / 1 pt
Auto-graded

- True ✓
- False

20. To use a satellite for communication relay or repeater purposes what type of orbit will be the best?

1 / 1 pt
Auto-graded

Circular orbit

Elliptical orbit

Geosynchronous orbit ✓

Triangular orbit

21. Which of the following devices assist in using the same antenna for transmission and receiving?

1 / 1 pt
Auto-graded

Monoplexer

Multiplexer

Duplexer ✓

Switch

22. What is the device that converts the balanced line to an unbalanced line called?

1 / 1 pt
Auto-graded

Unbalancer

Balancer

Balun ✓

Equalizer

23. Coaxial cables are _____ lines?

1 / 1 pt
Auto-graded

Balanced

Unbalanced ✓

LAN

Parallel wire

24. What is it called when the noise is present in the transmission line but gets canceled at the receiver?

1 / 1 pt
Auto-graded

Cancellation mode

Common mode cancellation

Common mode rejection ✓

Rectification

25. The satellite that is used as a relay to extend communication distance is called as _____

1 / 1 pt
Auto-graded

Relay satellites

Communication satellites ✓

Repeater satellites

Geosynchronous satellites