

# MULTIPLE CHOICE QUESTIONS IN DATA COMMUNICATIONS AND NETWORKING

## A Complete Chapter Quiz

### Transmission Media

Compilation of all the quizzes (MCQs) for each and every chapters in the book of Data Communications and Networking 4th Edition by Behrouz A. Forouzan.

1. When the angle of incidence is \_\_\_\_\_ the critical angle, the light beam bends along the interface.
- A) less than
  - B) equal to**
  - C) more than
  - D) none of the above
2. Transmission media lie below the \_\_\_\_\_ layer.
- A) application
  - B) transport
  - C) network
  - D) physical**
3. \_\_\_\_\_ cable consists of an inner copper core and a second conducting outer sheath.
- A) Twisted-pair
  - B) Shielded twisted-pair
  - C) Coaxial**
  - D) Fiber-optic
4. \_\_\_\_\_ consists of a central conductor and a shield.
- A) Twisted-pair
  - B) Coaxial**
  - C) Fiber-optic
  - D) none of the above
5. \_\_\_\_\_ cable can carry signals of higher frequency ranges than \_\_\_\_\_ cable.
- A) Coaxial; twisted-pair**
  - B) Twisted-pair; fiber-optic
  - C) Coaxial; fiber-optic
  - D) none of the above
6. \_\_\_\_\_ are used for cellular phone, satellite, and wireless LAN communications.
- A) Radio waves
  - B) Infrared waves
  - C) Microwaves**
  - D) none of the above
7. The inner core of an optical fiber is \_\_\_\_\_ in composition.
- A) copper
  - B) glass or plastic**
  - C) bimetallic
  - D) liquid
8. What is the major factor that makes coaxial cable less susceptible to noise than twisted-pair cable?
- A) insulating material
  - B) inner conductor
  - C) diameter of cable
  - D) outer conductor**
9. Signals with a frequency below 2 MHz use \_\_\_\_\_ propagation.
- A) line-of-sight
  - B) sky
  - C) ground**
  - D) none of the above
10. In an optical fiber, the inner core is \_\_\_\_\_ the cladding.
- A) less dense than
  - B) denser than**
  - C) the same density as
  - D) another name for
11. \_\_\_\_\_ cable consists of two insulated copper wires twisted together.
- A) Twisted-pair**
  - B) Coaxial
  - C) Fiber-optic
  - D) none of the above
12. In fiber optics, the signal is \_\_\_\_\_ waves.
- A) radio
  - B) light**
  - C) infrared

D) very low-frequency  
13. Signals with a frequency above 30 MHz use \_\_\_\_\_ propagation.

A) line-of-sight

B) sky

C) ground

D) none of the above

14. A parabolic dish antenna is a(n) \_\_\_\_\_ antenna.

A) unidirectional

B) bidirectional

C) omnidirectional

D) horn

15. A(n) \_\_\_\_\_ medium provides a physical conduit from one device to another.

A) unguided

B) guided

C) either (a) or (b)

D) none of the above

16. \_\_\_\_\_ cable is used for voice and data communications.

A) Twisted-pair

B) Coaxial

C) Fiber-optic

D) none of the above

17. Signals with a frequency between 2 MHz and 30 MHz use \_\_\_\_\_ propagation.

A) ground

B) line-of-sight

C) sky

D) none of the above

18. Transmission media are usually categorized as \_\_\_\_\_.

A) determinate or indeterminate

B) fixed or unfixed

C) guided or unguided

D) metallic or nonmetallic

19. \_\_\_\_\_ are used for short-range communications such as those between a PC and a peripheral device.

A) Radio waves

B) Infrared waves

C) Microwaves

D) none of the above

20. \_\_\_\_\_ media transport electromagnetic waves without the use of a physical conductor.

A) Guided

B) Unguided

C) Either (a) or (b)

D) None of the above

21. \_\_\_\_\_ cables are composed of a glass or plastic inner core surrounded by cladding, all encased in an outside jacket.

A) Twisted-pair

B) Coaxial

C) Fiber-optic

D) none of the above

22. Which of the following primarily uses guided media?

A) radio broadcasting

B) satellite communications

C) local telephone system

D) cellular telephone system

23. When a beam of light travels through media of two different densities, if the angle of incidence is greater than the critical angle, \_\_\_\_\_ occurs.

A) refraction

B) reflection

C) criticism

D) incidence

24. Which of the following is not a guided medium?

- A) fiber-optic cable
- B) coaxial cable
- C) twisted-pair cable
- D) atmosphere

25. Microwaves are \_\_\_\_\_.

- A) omnidirectional
- B) bidirectional
- C) unidirectional
- D) none of the above

26. \_\_\_\_\_ cables carry data signals in the form of light.

- A) Twisted-pair
- B) Coaxial
- C) Fiber-optic
- D) none of the above

27. Radio waves are \_\_\_\_\_.

- A) unidirectional
- B) omnidirectional
- C) bidirectional
- D) none of the above

28. In a fiber-optic cable, the signal is propagated along the inner core by \_\_\_\_\_.

- A) refraction
- B) reflection
- C) modulation
- D) none of the above