

Telecommunications and Human Biology

Telecommunications · Practice Test · 20 Questions

1. What type of wave do mobile phones use to transmit signals that also passes through human tissue?

- A) Sound waves
- B) Radio waves
- C) Water waves
- D) Mechanical waves

2. Which part of the human eye is most commonly associated with light-based communication, such as fiber optics?

- A) The retina
- B) The cornea
- C) The iris
- D) The lens

3. In a cochlear implant, which body part is directly stimulated by electrical signals to help a person hear?

- A) The eardrum
- B) The auditory nerve
- C) The outer ear
- D) The throat

4. Which form of radiation used in telecommunications is classified as 'non-ionizing', meaning it lacks enough energy to damage DNA?

- A) X-rays
- B) Gamma rays
- C) Radiofrequency energy
- D) Ultraviolet light

5. What physical phenomenon occurs when telecommunication devices are placed near sensitive medical equipment like pacemakers?

- A) Electromagnetic interference
- B) Biological regeneration
- C) Cellular mutation
- D) Refraction

6. The human brain communicates internally using signals that are similar to which component of electronic telecommunications?

- A) Direct current
- B) Electrical impulses
- C) Fiber optic light
- D) Mechanical vibration

7. Which body part is most sensitive to the thermal effects of high-intensity radiofrequency exposure?

- A) The skin
- B) The eyes
- C) The lungs
- D) The fingernails

8. In telecommunications, 'latency' refers to delay; in human biology, what is the delay between a stimulus and a physical reaction called?

- A) Reflex time
- B) Reaction time
- C) Sleep cycle
- D) Metabolism

9. Which type of telecommunication light is invisible to the human eye but used in infrared remote controls?

- A) Ultraviolet
- B) Infrared
- C) Visible light
- D) X-ray

10. What is the primary way the human body maintains its temperature, a process that can be studied in relation to external heat sources like electronic devices?

- A) Thermoregulation
- B) Photosynthesis
- C) Electrolysis
- D) Osmosis

11. Which sensory organ converts light waves into signals for the brain, similar to how a photo-sensor works in optical telecommunications?

- A) The nose
- B) The skin
- C) The eye
- D) The tongue

12. What do telecommunication systems and human nervous systems both require to transmit information effectively?

- A) A pathway
- B) A digestive system
- C) A muscular system
- D) A skeleton

13. Which term describes the process of encoding information, such as the brain encoding memories or a modem encoding data?

- A) Encoding
- B) Digestion
- C) Exhalation
- D) Perspiration

14. Radiofrequency telecommunications operate on specific frequencies, much like how the human ear identifies different:

- A) Pitches of sound
- B) Colors of light
- C) Smells
- D) Textures

15. Which common telecommunication device requires the user to place it against the ear to transmit sound waves to the auditory canal?

- A) Smartphone
- B) Satellite dish
- C) Fiber optic cable
- D) Router

16. What is the unit of frequency used to measure both telecommunication signals and human brain waves?

- A) Hertz
- B) Joules
- C) Watts
- D) Volts

17. Which part of the human nervous system acts as the main 'signal hub' for transmitting information, similar to a telecommunications network switch?

- A) The spinal cord
- B) The stomach
- C) The liver
- D) The bone

18. Exposure to excessive noise from telecommunication headsets can cause damage to which internal ear structure?

- A) Cochlea
- B) Earlobe
- C) Pinna
- D) Eardrum

19. Which natural telecommunication system allows humans to share complex information through sound vibrations in the air?

- A) Speech
- B) Breathing
- C) Digestion
- D) Walking

20. What does the human body use to protect the 'cables' of the nervous system, similar to insulation on copper telecommunication wires?

- A) Myelin sheath
- B) Skin
- C) Hair
- D) Blood