

Fundamentals of Data Communication and Networking

Telecommunications Engineering · Answer Key · 10 Questions

1. Which historical method of communication utilized the positioning of flags?

- A) Smoke Signals
- B) Pigeon Courier
- C) Semaphore Flags**
- D) Pony Express

2. What is the defining feature of 5G mobile technology?

- A) Analog signals
- B) SMS
- C) High-speed streaming
- D) Beamforming**

3. In the Shannon Model, what component converts information into an electrical signal?

- A) Source
- B) Source Encoder**
- C) Transmitter
- D) Sink

4. Which network topology requires a line terminator to prevent signal bouncing?

- A) Star
- B) Ring
- C) Bus**
- D) Mesh

5. What is the maximum typical range for a Personal Area Network (PAN)?

- A) 10 meters**
- B) 100 meters
- C) 1 kilometer
- D) 10 kilometers

6. Which signal property refers to the number of waves passing a point per second?

- A) Wavelength
- B) Amplitude
- C) Frequency**
- D) Period

7. What is the process of converting digital data into analog radio waves?

A) Demodulation

B) Modulation

C) Quantization

D) Sampling

8. Which category of noise is caused by natural phenomena like lightning?

A) Thermal

B) Shot

C) Atmospheric

D) Man-made

9. What does the acronym 'Modem' stand for?

A) Modern Demodulator

B) Modular Demodulation

C) Modulator/Demodulator

D) Mobile Demodulator

10. Which impairment is described as the loss of signal strength over distance?

A) Attenuation

B) Distortion

C) Thermal Noise

D) Shot Noise