

Subject	Wireless and Mobile Computing	Date	4/12/2021
Allowed	1 Hour	Total Mark	30 Marks

Answer the following Questions: Choose the best answer

- Conversion permits use of modern digital transmission and switching equipment. However, when conversion is done between:
  - ☒ Analog data, digital signal
  - ☐ Digital data, digital signal
  - ☐ Digital data, analog signal
  - ☐ Analog data, analog signal
- Equipment for encoding is less expensive than digital-to-analog equipment
  - ☐ Analog data, digital signal
  - ☒ Digital data, digital signal
  - ☐ Digital data, analog signal
  - ☐ Analog data, analog signal
- narrow band of frequencies that most of signal's energy is contained in.
  - ☐ Spectrum
  - ☐ Absolute bandwidth
  - ☒ Effective bandwidth
  - ☐ Fundamental frequency

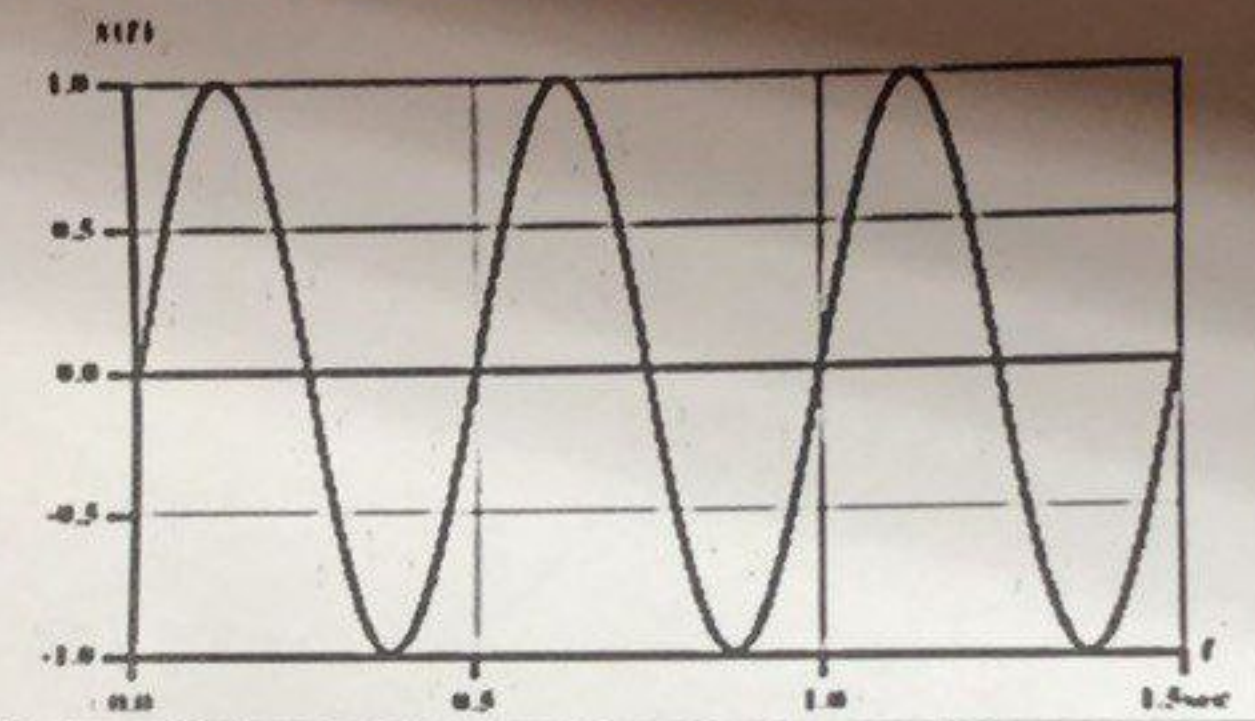


Fig1. Sine Wave

- According to figure 1, the amplitude of the sine wave is:
  - ☒ 1
  - ☐ 0.5
  - ☐ 2
  - ☐ 1.5
- According to figure 1, the phase of the sine wave is:
  - ☐ 90
  - ☒ 0
  - ☐ 45
  - ☐ 180
- According to figure 1, the frequency of the sine wave is:
  - ☐ 1
  - ☒ 2
  - ☐ 3
  - ☐ 4
- Microwave frequency range
  - ☒ 1GHz to 40 GHz
  - ☐ 30MHz to 1GHz
  - ☐ 1GHz to 4GHz
  - ☐ 30GHz to 1GHz
- The Multiplexing technique that focus on data rate is :
  - ☐ FDM
  - ☒ TDM
  - ☐ Multiplexing
  - ☐ none of above.
- The downlink in satellite microwave transmissions relates with:
  - ☐ Sender
  - ☐ receiver
  - ☒ sender & receiver
  - ☐ none of the above.

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10- SNR increase when the data rate

- a. Increase b. decrease c. equal d. none of the above.

Answer the following Questions: Mark the following answers

1. Analog signals can propagate analog and digital data مش متأكد  
☒ True b. False
2. Noise interference in analog signals is higher than digital signals  
☒ True b. False
3. Analog signal is a multilevel signal مش متأكد  
a. True ☒ False
4. The upper bound of SNR equation is equal to data rate.  
☒ True b. False
5. The Nyquist Bandwidth considered the calculation of noise in its formula  
a. True ☒ False
6. Multiplexing improves the data rate transmissions. مش عارف  
a. True b. False
7. Wireless transmission is a guided media.  
a. True ☒ False
8. Signal amplitude varies over time  
☒ True b. False
9. Communication efficiency is higher in circuit switching than communication  
a. True ☒ False
10. Priorities used in circuit switching. مش عارف  
a. True b. False

"With my best wishes"

Dr. Mohammed Abdalla