Quarter: Prelim

Identification: (Sa ubos magtuon)

1.	arose in the technology of transmission of electrical signals over wire
	communications lines.
2.	This generation uses a new technology called Universal Mobile
	Telecommunication Systems (UMTS) in which it can render multimedia services along a line
	with streaming.
3.	
	information.
4.	takes on discrete values.
5.	in the form of a number, character, text, audio, or video.
6.	In this generation, Cellphones are upgraded from analog to digital.
7.	This form is often used by ancient Persians, Romans, and Greeks to send
	messages using a bird as a courier.
8.	In 1792, Claude Chappe developed a messaging system that uses flags as
	methods of communication.
9.	In 1860, this mail service delivers messages, newspapers, and mails using
	relays of horse-mounted riders.
10.	It revolutionized long-distance communication by sending electric signals
	(Morse code) in between two (2) stations.
11.	can be created, deleted, stored, or transferred.
12.	This generation rolls out faster data transfer speeds up to 10 times faster than
	4G.
13.	
	waves.
14.	
	This is according to Claude Shannon.
16.	
	a piece of information that can be analog or digital.
	refers to continuous information.
	These consist of ones and zeros (1's and 0's).
20.	
	Multiple Output (MIMO) and Orthogonal Frequency Division Multiplexing (OFDM).

Subject Name: Data and Digital Communications (Data Communications) Module: 1 Quarter: Prelim 21. _____- means communication through data bits (as in electric currents and voltages switching on or off). 22. ______ - a representation of the conditions and parameters affecting the transmission and processing of information. 23. _____- refers to the exchange of data between a source and a receiver in a network. 24. - generates the information 25. _____- converts the information into an electrical form called message signal. 26. ______ - is used to convert the message signal into a form acceptable to the channel. 27._____- is the path or link that connects the transmitter and the receiver. 28. _____- performs an inverse function of that of the transmitter to recover the message signal. 29. _____- converts the electrical signal back to a form acceptable to the receiver. 30. _____- is the user of the information generated by the source. 31. ______ - It is a link that permanently connects two (2) nodes or network devices. 32. ______ One (1) node is connected to multiple nodes, each in a P2P manner. 33. ______ All nodes are interconnected by a single link with one (1) node that is the master node and the other nodes are secondary or slave nodes. 34. — It is like the multidrop topology with the exception that there is no master—slave relationship; all nodes are peers. 35. ______ The nodes are connected serially in a P2P manner with the last node connected to the first node to form a loop. 36.______ It is formed by connecting multiple buses to form a system of branching links with no closed loop. 37.______ It is a topology in which each node is connected in a P2P manner to a central node called a hub. 38. ______ - The network nodes are interconnected arbitrarily. 39. - are networks that interconnect devices within the reach of an individual, usually within a range of 10 meters. 40. - cover small geographical areas, typically a building, a floor, or a campus. 41. _____- interconnect LANs in a campus or metropolitan area. 42. _____- cover much larger areas such as a country (e.g., public switched telephone network [PSTN]) or the globe (e.g., the Internet).

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Answer Key:

 long-distance communication - arose in the technology of transmission of electrical signals over wire communications lines.

- 3rd Generation (3G) This generation uses a new technology called Universal Mobile Telecommunication Systems (UMTS) in which it can render multimedia services along a line with streaming.
- 3. **Smoke Signals** This is one of the oldest forms of long-distance communication for transmitting information.
- 4. **Digital data** takes on discrete values.
- 5. **Data** in the form of a number, character, text, audio, or video.
- 6. **2nd Generation (2G)** In this generation, Cellphones are upgraded from analog to digital.
- 7. **Pigeon Courier** This form is often used by ancient Persians, Romans, and Greeks to send messages using a bird as a courier.
- 8. **Semaphore Flags** In 1792, Claude Chappe developed a messaging system that uses flags as methods of communication.
- 9. **Pony Express** In 1860, this mail service delivers messages, newspapers, and mails using relays of horse-mounted riders.
- 10. **Electrical Telegraph** It revolutionized long-distance communication by sending electric signals (Morse code) in between two (2) stations.
- 11. Data can be created, deleted, stored, or transferred.
- 12. **5th Generation (5G)** This generation rolls out faster data transfer speeds up to 10 times faster than 4G.
- 13. Wireless Telegraphy (Radio) It is a transmission of electric current projected into space in the form of radio waves.
- 14. **Telephone** It is an instrument designed for the simultaneous transmission of human voice.
- 15. **Information theory** This is according to Claude Shannon.
- 16. **1st Generation (1G)** This generation uses analog wireless technology in communications.
- 17. **Data** a piece of information that can be analog or digital.
- 18. **Analog data** refers to continuous information.
- 19. **Digital data** These consist of ones and zeros (1's and 0's).
- 20. **4th Generation (4G)** The key technologies that have made in this generation are Multiple Input Multiple Output (MIMO) and Orthogonal Frequency Division Multiplexing (OFDM).

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21. **Digital communication** - means communication through data bits (as in electric currents and voltages switching on or off).

- 22. **Information theory** a representation of the conditions and parameters affecting the transmission and processing of information.
- 23. **Data communication** refers to the exchange of data between a source and a receiver in a network.
- 24. **source** generates the information
- 25. **source encoder** converts the information into an electrical form called message signal.
- 26. **transmitter** is used to convert the message signal into a form acceptable to the channel.
- 27. **channel** is the path or link that connects the transmitter and the receiver.
- 28. receiver performs an inverse function of that of the transmitter to recover the message signal.
- 29. **source decoder** converts the electrical signal back to a form acceptable to the receiver.
- 30. **sink** is the user of the information generated by the source.
- 31. **Point-to-Point (P2P) topology** It is a link that permanently connects two (2) nodes or network devices.
- 32. **Point-to-Multipoint topology** One (1) node is connected to multiple nodes, each in a P2P manner.
- 33. **Multidrop topology** All nodes are interconnected by a single link with one (1) node that is the master node and the other nodes are secondary or slave nodes.
- 34. **Bus topology** It is like the multidrop topology with the exception that there is no master–slave relationship; all nodes are peers.
- 35. **Ring topology** The nodes are connected serially in a P2P manner with the last node connected to the first node to form a loop.
- 36. **Tree topology** It is formed by connecting multiple buses to form a system of branching links with no closed loop.
- 37. **Star topology** It is a topology in which each node is connected in a P2P manner to a central node called a hub.
- 38. **Mesh topology** The network nodes are interconnected arbitrarily.
- 39. **Personal area networks (PANs)** are networks that interconnect devices within the reach of an individual, usually within a range of 10 meters.
- 40. **Local area networks (LANs)** cover small geographical areas, typically a building, a floor, or a campus.
- 41. **Metropolitan area networks (MANs)** interconnect LANs in a campus or metropolitan area.

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42. **Wide area networks (WANs)** - cover much larger areas such as a country (e.g., public switched telephone network [PSTN]) or the globe (e.g., the Internet).