

C.U.SHAH UNIVERSITY

Winter Examination – 2018

Subject Name: Data Communication & Networking

Subject Code: 4CS03BNT1

Branch: B.C.A.

Semester: 3

Date: 01/12/2018

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

- Q-1 Attempt the following questions: (14)**
- a) Radio waves are _____.
(a) omni directional (b) unidirectional (c) bidirectional (d) horn
 - b) A one-to-many communication between one source and a specific group of hosts is classified as a _____ communication.
(a) unicast (b) multicast (c) broadcast (d) point to point
 - c) UDP and TCP are both _____ layer protocols.
(a) data link (b) network (c) transport (d) interface
 - d) In the OSI model, encryption and decryption are functions of the _____ layer.
(a) Transport (b) Session (c) Presentation (d) Application
 - e) Which protocol data unit is employed at network layer?
(a) bits (b) frames (c) packets (d) segments
 - f) MTU stands for _____.
(a) Maximum Transmission Unit (b) Minimum Transfer Unit
(c) Minimum Transmission Unit (d) Maximum Transfer Unit
 - g) Which of the following devices translates dissimilar network protocols?
(a) Router (b) Repeater (c) Switch (d) Gateway
 - h) Keyboard is an example of _____ modes data communication.
(a) Simplex (b) Half duplex (c) Full duplex (d) None
 - i) UTP cables are connected by _____.
(a) RJ – 65 (b) RJ – 45 (c) RJ – 35 (d) RJ – 25
 - j) The message is broken down into smaller chunks, it is called _____.
(a) data (b) frame (c) packet (d) segment
 - k) Which class of IP address is reserved for multicast communication?
(a) Class A (b) Class B (c) Class C (d) Class D
 - l) IPv6 address has how many bits?
(a) 64 bits (b) 128 bits (c) 32 bits (d) 256 bits
 - m) DHCP protocol provides _____ to the client.
(a) IP address (b) MAC address (c) URL (d) None



- n) WiMAX stands for
- (a) Wireless maximum communication
 - (b) Worldwide interoperability for microwave access
 - (c) Worldwide international standard for microwave access
 - (d) None of the above

Attempt any four questions from Q-2 to Q-8

- Q-2 Attempt all questions:**
- (1) Explain about modes of data communication. (5)
 - (2) What is network? Explain various types of network. (5)
 - (3) Write short note: point to point connection and multipoint connection. (4)
- Q-3 Attempt all questions:**
- (1) Explain about OSI reference model. (7)
 - (2) What is network topology? Describe about any three network topologies. (7)
- Q-4 Attempt all questions:**
- (1) Explain: Co-axial cable and Fiber optical cable. (5)
 - (2) Describe about Infrared and Bluetooth. (5)
 - (3) Differentiate between STP and UTP. (4)
- Q-5 Attempt all questions:**
- (1) What is multiplexing? Explain about types of multiplexing. (5)
 - (2) Define switching. Explain about switching techniques. (5)
 - (3) Write short note on microwave. (4)
- Q-6 Attempt all questions:**
- (1) Explain about repeater device and bridge device. (5)
 - (2) Write short note: hub and wireless access point. (5)
 - (3) Differentiate between IPv4 and IPv6. (4)
- Q-7 Attempt all questions:**
- (1) What is IPv4? Explain about IPv4 addressing class. (5)
 - (2) Describe on router device and gateway device. (5)
 - (3) Differentiate between TCP and UDP. (4)
- Q-8 Attempt all questions:**
- (1) Explain about ARP and RARP (5)
 - (2) Describe about TCP/IP protocol suite network model. (5)
 - (3) Describe about POP3 and IMAP4. (4)

