

G.S.Mandal's
Marathwada Institute of Technology, Aurangabad
Department of Electronics and Telecommunication Engineering

Course Name: - Computer Communication Network
Academic Year: - 2017-18

Course Code: - EXD-451
Semester: - VIII [B.E]

Question Bank: - I

Unit I: - Introduction Computer Communication Network

Q. Answer the following questions in detail. (7/8 Marks Each)

- [1] What are the different computer networks? Explain with suitable diagram.
- [2] What are the different design issues of network?
- [3] Compare and contrast circuit switching, message switching and packet switching.
- [4] With the help of suitable diagram explain ISO-OSI reference model and compare it with TCP/IP model.
- [5] In packet switching how the packets are handled explain
- [6] What do you mean by topologies? Explain in brief topologies of network
- [7] Compare and contrast between LAN, MAN and WAN.
- [8] Differentiate between client server model and peer to peer mode of network.
- [9] Draw and explain detailed structure of WAN.
- [10] Draw and explain TCP/IP reference model.

Due date for Submission: **20th Jan 2018**

Mr.Pankaj R. Bhusari
[Assistant Professor]
Course Teacher

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Question Bank: - II

Unit II: - Link Perspective and Network Perspective

Q. Answer the following questions in details. (7/8 Marks Each)

- [1] What are the different issues of data link layer?
- [2] What do you mean by protocol? Explain stop and wait protocol, in detail
- [3] Explain in detail distance vector routing algorithm
- [4] What are the different internet transport protocols? Explain TCP
- [5] Explain in detail shortest path routing algorithm
- [6] What are the different issues of network layer?
- [7] Write a short note on
 - a) Sliding window protocol
 - b) Routing algorithm
 - c) Hierarchical routing
 - d) Congestion control
 - e) Framing
 - f) RTP
 - g) RPC
 - h) Leaky bucket algorithm
- [8] Identify the classes of following IP addresses:
 - a) 127.255.255.255
 - b) 191.255.10.255
 - c) 223.255.11.255
 - d) 239.255.255.255
 - e) 255.255.255.255
 - f) 172.32.255.255

Due date for Submission: 3rd Feb 2018

Mr.Pankaj R. Bhusari
[Assistant Professor]
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Question Bank: - III

Unit III: - The Transport Layer and Application Layer

Q. Answer the following questions in detail. (7/8 Marks Each)

- [1] Explain in detail elements of transport protocol.
- [2] Explain in brief http and www.
- [3] What are the different Internet transport protocols? Explain TCP.
- [4] Explain procedure for creating a web page in HTML.
- [5] With the help of suitable diagram explain TCP connection establishment.
- [6] Write a short note no:
 - a) Quality of service
 - b) User datagram packet
 - c) Domain name system
 - d) Connection oriented and connectionless services
 - e) SMTP
 - f) Service primitives
 - g) E-mail

Due date for Submission: 17th Feb 2018

Mr.Pankaj R. Bhusari
[Assistant Professor]
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Question Bank: - IV

Unit IV: - ISDN

Q. Answer the following questions in details. (7/8 Marks Each)

- [1] Describe basic rate user network interface of ISDN.
- [2] Draw and explain functional architecture of B-ISDN.
- [3] What are the different services provided by ISDN?
- [4] Compare narrow band and wide band ISDN.
- [5] Draw and explain conceptual view of ISDN.
- [6] Draw and explain ISDN protocol architecture at the user network interface.
- [7] What are the different principals of ISDN?
- [8] Explain transmission structure of ISDN.
- [9] Describe Primary ISDN interface.
- [10] Write a short note on:
 - a) ISDN addressing
 - b) Layers of ISDN
 - c) Physical layer of ISDN

Due date for Submission: **3rd Mar 2018**

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Question Bank: - V

Unit V: - Frame Relay and ATM

Q. Answer the following questions in details. (7/8 Marks Each)

- [1] Draw and explain the standard frame relay format
- [2] Give the classification frame relay virtual circuit and explain.
- [3] Explain in brief ATM protocol architecture.
- [4] Explain in detail frame mode protocol architecture at the user network interface
- [5] Discuss on ATM virtual path and virtual channel
- [6] Discuss on congestion notification mechanism in frame relay
- [7] Explain in brief ATM cell format
- [8] Write a short note on DLCI
- [9] Draw ATM cell format

Due date for Submission: **17th Mar 2018**

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Question Bank: - VI

Unit VI: - Cryptography and Network Security

Q. Answer the following questions in details. (7/8 Marks Each)

- [1] What do you mean by cryptography? Explain public key algorithm RSA.
- [2] What is stenography? Explain how stenography is used.
- [3] Explain how steganography is used in image processing?
- [4] Explain how steganography is used in audio system
- [5] Discuss in brief traditional cryptography techniques.
- [6] What do you mean by cryptography? Explain secret key algorithm.
- [7] What are the different applications of steganography?
- [8] Explain different coding used in steganography.
- [9] Write a short note on:
 - a) Secret key algorithm
 - b) Public key algorithm
 - c) Stream cipher
 - d) RSA

Due date for Submission: **31th Mar 2018**

Mr.Pankaj R. Bhusari
[Assistant Professor]
Course Teacher