END SEMESTER/RETEST 2020

COMPUTER COMMUNICATION AND NETWORKING

(CO-504)

FULL MARKS- 70 (25+45)

TIME – 3 HOURS

PART – A

MARKS – 25

All questions are compulsory

1. Fill up the blanks: 1*5=5

i) Dialog management service is provided by _____ layer

ii) DNS is a _____ layer protocol

iii) DHCP stands for _____

iv) In _____ ALOHA, transmission must be done in slot boundary

v) In a _____ network, any client computer can also be a server

2. Choose the correct alternatives   1*10=10

i) OSI stands for

a) open system interconnection

b) operating system interface

c) optical service implementation

d) none of the mentioned

ii) A file can be transferred by using

a) ARP

b) FTP

c) SMTP

d) Both (a) and (b)

iii) TCP is a

a) Reliable service

b) Unreliable service

1

c) Both (a) and (b)

d) None of these

iv) Packets are found at which layer?

a) Data link

b) Transport

c) Network

d)Session

v) TCP/IP model does not have _____ layer but OSI model have this layer.

a) session layer

b) presentation layer

c) application layer

d) both (a) and (b)

vi). Which of the following are transport layer protocols?

a) TCP and UDP

b) IP

c) FTAM

d) IP and TFTP

vii) Encryption takes place at which layer?

a) Application

b) Presentation

c) Session

d) Transport

viii) What is the simplest type of twisted-pair phone cabling that provides a slow ,reliable path for information at up to 64 Kbps
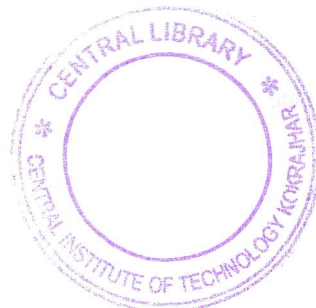
a) Cat 1

b) Optical fiber

c) Microwave

d) Coax

ix) Which type of network is the telephone system?

2

a) Public network

b) Private network

c) VPN

d) VAN

x) The network layer concerns with

a) bits

b) frames

c) packets

d)none of the above

3. Write true or false against each statement given below   1*10=10

a) A switch is a device that connects multiple computers into a network in which multiple communications links can be in operation simultaneously.

b) The leaky bucket is a routing algorithm

c) The error detection/correction techniques ensure that there are absolutely no undetected bit errors

d) A firewall is software and/or hardware that protects a computer or network from intruders .

e) A LAN is a large area network

f) Wireless communication media transmits information over a closed , connected path

g) In a peer-to-peer network, all data and software are stored on a centralized server.

h) Simple parity check is used for error correction

i) Today fiber optic cable is the media of choice for backbone networks

j) The fastest type of internet connection is created by using dial-up

PART B

MARKS-45

Answer any *three* questions

4. (a) Draw the layered architecture of OSI model and explain the function of each layer of OSI model.

                                                                                3+7=10

(b) Describe the concept of circuit switching and packet switching   5

5.(a) Explain two types of guided media and two types of unguided media transfer in networks.

5+5=10

(b)   Write about wireless transmission briefly.   5

6. (a) Explain various types of errors in data transmission .   5

   (b) Define sliding window protocol .   2

   (c) What are the design issue of network layer.   3

   (d) Discuss session layer services in brief..   5

7.(a) What do you mean by IP address? How many classes of IPV4 . Explain in brief.   2+5=7

   (b) Why do you need routing protocols? Explain in brief the distance vector routing algorithm

2+6=8

8. (a) What is error detection? List various methods of error detection and explain any one of them in brief .   2+5= 7

   (b) Explain the general approaches to data compression in brief.   8

****