

Exam.Code:0922

Sub. Code: 6481

2023

B.E. (Information Technology)

Fourth Semester

PCIT-402: Computer Networks

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- (a) What is Error correction and detection?
- (b) Discuss IEEE 802.3 frame format
- (c) Compare TCP and UDP.
- (d) Discuss functioning of bridge and router
- (e) Differentiate between connection oriented and connectionless service. (5x2)

UNIT - I

II. (a) What is the difference between circuit switching and packet switching? Which one of them is faster and why? Which is more resource intensive and why?

(b) Explain the network architecture of a cellular network. (6,4)

III. Write short notes on the following:-

- (a) CSMA protocols
- (b) Collision free protocols
- (c) Wireless transmission
- (d) ALOHA (10)

IV. (a) Write a note on types of guided and unguided transmission media giving their merits and demerits.

(b) Give an overview of OSI and TCP/IP reference models. Also discuss similarities and dissimilarities between these two models. (2x5)

P.T.O.

(2)

UNIT - II

- V. Write short notes on the following:-
- (a) Network security
 - (b) DNS
 - (c) Flow control and buffering
 - (d) Congestion control algorithms (10)
- VI. (a) Explain the header information and security features of IPV6.
- (b) Explain any two routing algorithms. (6,4)
- VII. (a) Explain the IP addressing. Compare the features of IPV4 and IPV6.
- (b) What is the use of multicast routing protocol? How are address assignments done in multicast routing? (6,4)

x-x-x