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Total Number of Pages : 01

MCA
MCA303

3rd Semester Regular/Back Examination 2019-20
COMPUTER NETWORKS

BRANCH : MCA

Max Marks : 100

Time : 3 Hours

Q.CODE : HRB703

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part-I

Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)

- a) Hop to Hop delivery is related to which layer?
- b) In which layer the process of inserting the header information of the layer and the data from higher layer into the data frame?
- c) The numbers of cross points needed for 10 lines in a cross point switch which is full duplex in nature and there are no self connection is -----?
- d) What is TCP congestion control algorithm?
- e) In sliding window protocol the receiver window size is at most -----?
- f) Define Physical Address
- g) What is GIGABIT Ethernet?
- h) What is persistent HTTP?
- i) telnet is used for -----?
- j) Define a proxy server

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- a) Write short notes on DNS
- b) What is IGMP? how it will used in networking?
- c) Differentiate between Guided and Unguided media of transmission with examples.
- d) What is the use of UDP in networking and How?
- e) What are the design goals and limitations of ATM?
- f) What is the difference between ipv4 and ipv6?
- g) What is the difference between bridge and switch?
- h) Describe OSPF routing protocol briefly?
- i) What is checksum? Describe how it works with a suitable example?
- j) What is topology? Describe different types of topology with neat and clean diagram?
- k) Different types of random access protocols
- l) Discuss the operations of UDP?

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** Define Line coding? What are the characteristics of line coding? Describe different types of line coding? How it differs from block coding? **(16)**
- Q4** What do you mean by routing? What is Link state routing? Describe the process of formation of link state knowledge, routing tables, link state packets, flooding of LSPs and formation of shortest path using dijkstra's Algorithm briefly? **(16)**
- Q5** Explain Web service architecture in detail? **(16)**
- Q6** What is Frame Relay? Describe the architecture and various layers of Frame relay? **(16)**