GIET MAIN CAMPUS AUTONOMOUS GUNUPUR – 765022

BD18002004

Registration No:

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AR-18

M.TECH 1ST SEMESTER EXAMINATIONS(BACK), NOV/DEC 2019

ADVANCED COMMUNICATION NETWORKS

Branch: EC, MECPC1010

Time: 3 Hours **Max Marks : 70**

The figures in the right hand margin indicate marks.

PART-A (10 X 2=20 MARKS)

1. Answer the following questions.

a) a. What are the major factors are involved in the performance of the network?
b) What is the difference between FTP and HTTP?
c) What are the advantages of packet switching?
d) What is TCP congestion control algorithm?
e) What is the effect of propagation delay on CSMA?
f) What is the difference between channel partitioning protocol and random access protocol? Give examples of each.
g) What id DNS? Why is it needed?
h) What are the major factors are involved in the performance of the network?
i) Write about 32-bit subnet masking.
j) What is Snooping TCP?

PART-B (5 X 10=50 MARKS)

Answer any five questions from the following.

2. (a) Explain Web service architecture in detail? **(5)**
(b) What do you mean by Transmission media? Describe different types of transmission media with advantages and disadvantages of each? **(5)**

3.(a) What is ATM? Describe the architecture and various layers of Frame relay? **(5)**
(b) Define SMTP? Describe how it works? **(5)**

4.(a) What is HTTP? Describe different types of HTTP? **(5)**
(b) Discuss the layer functionalities of the OSI reference model with neat diagram? **(5)**

5.(a) What is congestion? Explain the principle and prevention policies of congestion control. **(5)**
(b)Draw the schematic diagram of IPv6 Header. Explain the various fields used in it. Give the advantages of IPv6 over IPv4. **(5)**

6.(a) 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? **(5)**
(b) What are the design goals and limitations of ATM? **(5)**

7.(a) Give a definition of a Service and a Protocol? Use these definitions or any other discussion to illustrate the fundamental difference between a Service and a Protocol? **(5)**
(b) Discuss the use of formal analysis techniques for protocols. Comment on why such techniques are used in analysing protocols, and give some examples of the types of problems that such an analysis can reveal. **(5)**

8. Write short notes on **(5X 2)**
(a) SMTP
(b) Bluetooth

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