SVKM'S NMIMS

MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT ENGINEERING / SCHOOL OF TECHNOLOGY MANAGEMENT ENGINEERING

Program **MBA.Tech (COMPUTER)** Year: **II** Semester:**IV**

Academic Year: **2018-2019**

Subject: **Computer Networks** Marks: **70**

Date : **18 June 2019** Time:**2.00 pm to 5.00 pm**

Duration: **3 (hrs)**

No. of Pages: 2

Re Examination (2018-19)

Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover of the Answer Book, which is provided for their use.

1) Question No.1 is compulsory.
2) Out of remaining questions, attempt any 4 questions.
3) **In all 5 questions to be attempted.**
4) All questions carry equal marks.
5) **Answer to each new question to be started on a fresh page.**
6) **Figures in brackets on the right hand side indicate full marks.**
7) **Assume suitable data if necessary.**

1.

a) Draw & compare ISO-OSI model & TCP/IP reference model. **[5]**

b) List & explain any 5 internetworking devices. **[5]**

c) Sketch the Manchester & Differential Manchester encoding for the bit stream: 0001110101. **[4]**

2.

a) Explain various types of wired transmission Media and Compare their performance. **[7]**

b) What is Switching? Differentiate Packet, Message and Circuit Switching. **[7]**

3.

a) Explain Framing. Explain Character count & Byte stuffing framing techniques with example. **[7]**

b) Prepare Hamming code for bit pattern 100110. How many check bits are included? At the receiver detect the error using hamming code if 7^{th} bit is flipped in received data (use even parity). **[7]**

4.

a) Differentiate between Go-back N & Selective repeat protocol. Also give example explaining each of them. [7]

b) How does CSMA protocol resolves channel allocation problem? Explain any two versions of carrier sense protocols. [7]

5.

a) Describe Leaky bucket algorithm in detail. What are its advantages and disadvantages? [7]

b) Describe Distance Vector routing with example. How it leads to count-to-infinity problem? Explain. [7]

6.

a) Draw & explain IPv4 header format. [7]

b) What are various features of TCP. Explain three-way handshake in TCP. [7]

7. Write a note on (any four): [14]

a) HTTP
b) QOS
c) Architecture of Internet
d) UDP
e) DNS