SVKM's NMIMS
MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Programme:MBA Tech (COMPUTER) Year: II Semester: IV

Academic Year: 2017-2018

Subject:Computer Networks

Date:07 May 2018

Marks:70
Time: 2.00 pm to 5.00 pm
Durations: 3 (hrs)
No. of Pages : 01

Final Examination

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.

NB:

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

Q1	a) b) c) d)	Differentiate between circuit switching & packet switching What is mesh topology give its advantages and disadvantages Write the difference between ISO-OSI model and TCP/IP model What are the different addresses uses for networking? Give example of each. Specify the layer in which that address is used.	4 4 4 2
Q2	A	What is the total delay (latency) for a frame of size 5 million bits that is being sent on a link with 10 routers each having a queuing time of 2 μs and a processing time of 1 μs. The length of the link is 2000 Km. The speed of light inside the line is 2×10^8 m/s. The link has a bandwidth of 5 Mbps.	7
	B	Explain distance vector routing algorithm.	7
Q3	A	Draw and explain IPv4 Header format. What are the different address classes of IPv4?	7
	B	What is framing? Explain different framing methods in data link layer.	7
Q4	A	A pure ALOHA network transmits 200 bit frames on a shared channel of 200kbps. What is the throughput if the system(all stations together) produces i)1000 frames per seconds ii)500 frames per seconds iii)250 frames per seconds	7
	B	Discuss about different types of Guided transmission media.	7
Q5	A	Prepare Hamming code for bit pattern 1010. At the receiver detects the error using Hamming Code if 7^{th} bit is flipped in received data.	7
	B	Explain SMTP protocol.	7
Q6	A	Draw and explain TCP Header in brief.	7
	B	Explain any three techniques the system designer used to achieve QoS.	7
Q7		Write a short note on any 2 i. HDLC ii. CSMA/CD iii. UDP	14