SVKM'S NMIMS

MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT ENGINEERING

Program **B. Tech (Computer)** Year: **II** Semester: **IV**

Academic Year: **2018-2019**

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

Date : **22 April 2019** Time:**2.00 pm to 5.00 pm**

Duration: **3 (hrs)**

No. of Pages: 02

Re-Examination (2016-17 / 2017-18)

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)	What is the Principal difference between connectionless and connection oriented communication?	4
	(b)	Explain the transmission modes.	3
	(c)	What are different switching techniques?	4
	(d)	Discuss the three main division of the domain name space.	3
2.	(a)	Define Congestion. What are the general Principles of Congestion?	6
	(b)	Explain the ISO/OSI layered architecture with neat sketch.	8
3.	(a)	List the differences between a unicast, multicast and broadcast address.	6
	(b)	What is ALOHA? Explain CSMA protocols in detail.	8
4.	(a)	Explain stop and wait ARQ protocol with neat diagram.	7
	(b)	Explain Hamming code with algorithm. Encode the data bits 0101 into a seven bit even parity hamming code.	7
5.	(a)	Give the frame structure of HDLC. Explain each field.	7
	(b)	Discuss different services of transport layer.	7
6.	(a)	What do you understand by HTTP protocol? Explain its working.	6
	(b)	Draw format of TCP packet header and explain each of its field.	8
7.	(a)	What is framing? Why it is implemented in Data Link Layer?	5

(b) For the given IP address 205.16.37.39/28 in some block of addresses, calculate: 5

i) Mention the class.
ii) Address Mask
iii) First address of the block.
iv) Broadcast address
v) Divide the network 205.16.37.0 into 4 subnets. Find the subnet mask.

(c) Explain the WWW in detail. 4
