Registration No : | | | | | | | | | | |

Total Number of Pages : 02 **B.Tech.**
PCS6I101

6th Semester Regular Examination 2017-18
COMPUTER NETWORK AND DATA COMMUNICATION
BRANCH : CSE
Time : 3 Hours
Max Marks : 100
Q.CODE : C147

Answer Part-A which is compulsory and any four from Part-B.
The figures in the right hand margin indicate marks.

Part – A (Answer all the questions)

Q1 **Answer the following questions : *multiple type or dash fill up type :*** **(2 x 10)**

a) Hop to Hop delivery is related to _____ layer?
b) _____ is 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) Check sum of 10101001 00111001 is ----------?
e) In sliding window protocol the receiver window size is at most ---------?
f) In NIC printed address is---------- address?
g) GIGABIT Ethernet uses ---------- encoding?
h) -------- no. of IP address are available to a company with a class B address?
i) Telnet is used for ---------?
j) A proxy server is ---------?

Q2 **Answer the following questions: *Short answer type :*** **(2 x 10)**

a) What is the difference between datagram and virtual circuit?
b) What are the advantages of packet switching?
c) What is the difference between multiple bit error and burst error?
d) What do you mean by flow control? What are the protocols particularly used for flow control?
e) What is the effect of propagation delay on CSMA?
f) Define and describe Ethernet Back off Algorithm?
g) What is persistent HTTP?
h) Define RSA. What is the drawback of RSA?
i) What is the difference between pop3 and smtp?
j) What is TCP congestion control algorithm?

Part – B (Answer any four questions)

Q3	**a)**	Define Line coding? What are the characteristics of line coding? Describe different types of line coding? How it differs from block coding?	**(10)**
	b)	What is topology? Describe different types of topology with neat and clean diagram?	**(5)**
Q4	**a)**	What is Random access protocol? Describe different types of random access protocols with advantages and disadvantages of each?	**(10)**
	b)	What is checksum? Describe how it works with a suitable example?	**(5)**
Q5	**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?	**(10)**
	b)	Describe OSPF routing protocol briefly?	**(5)**
Q6	**a)**	What is Frame Relay? Describe the architecture and various layers of Frame relay?	**(10)**
	b)	What is the difference between bridge and switch?	**(5)**
Q7	**a)**	Define UDP? Discuss the operations of UDP? Explain UDP checksum with one example?	**(10)**
	b)	What is the difference between ipv4 and ipv6?	**(5)**
Q8	**a)**	Explain Web service architecture in detail?	**(10)**
	b)	What are the design goals and limitations of ATM?	**(5)**
Q9		**Write short notes on any THREE :**	**(5 x 3)**
	a)	DNS	
	b)	IGMP	
	c)	Guided media of transmission	
	d)	UDP	