GIET MAIN CAMPUS AUTONOMOUS GUNUPUR – 765022

B. Tech Degree Examinations, June – 2021

(Sixth Semester)

BCSPC6010 – COMPUTER NETWORKS

(C.S.E)

Time: 2 hrs   Maximum: 50 Marks

Answer ALL Questions

The figures in the right hand margin indicate marks.

PART – A: (Multiple Choice Questions)   **(1 x 10 = 10 Marks)**

		[CO#]	[PO#]
Q.1. Answer *ALL* questions			
a. Each IP packet must contain		CO1	PO1
(i)Only Source address	(ii)Only Destination address		
(iii) Source and Destination address	(iv) Source or Destination address		
b. What is the minimum header size of an IP packet?		CO1	PO1
(i) 16 bytes	(ii) 10 bytes		
(iii) 20 bytes	(iv) 32 bytes		
c. Which of the following is not the possible ways of data exchange?		CO1	PO1
(i) Simplex	(ii) Multiplex		
(iii) Half-Duplex	(iv) Full-Duplex		
d. What does the port number in a TCP connection specify?		CO1; CO3	PO1; PO2
(i) The communication process on the two end systems	(ii) The quality of the data & connection		
(iii) The size of data	(iv)All of the above		
e. Which of the following protocol is/are defined in Transport layer?		CO1; CO3	PO1; PO2
(i)FTP	(ii) TCP		
(iii) UDP	(iv) (ii) and (iii)		
f. What is the size of MAC Address?		CO1; CO3	PO1
(i) 16 bits	(ii) 32 bits		
(iii) 48 bits	(iv) 64 bits		
g. Repeater operates in which layer of the OSI model?		CO3	PO1; PO2
(i) Physical Layer	(ii) Data Link Layer		
(iii) Network Layer	(iv) Transport Layer		
h. ADSL is the abbreviation of		CO1	PO1
(i)Asymmetric Dual Subscriber Line	(ii)Asymmetric Digital System Line		
(iii)Asymmetric Dual System Line	(iv)Asymmetric Digital Subscriber Line		
i. Which of the following layer of OSI model also called end-to-end layer?		CO3	PO1; PO2
(i)Presentation Layer	(ii)Network Layer		
(iii)Session Layer	(iv)Transport Layer		
j. DHCP is the abbreviation of		CO1;	PO1;
(i)Dynamic Host Control Protocol	(ii)Dynamic Host Configuration Protocol		
(iii)Dynamic Hyper Control Protocol	(iv)Dynamic Hyper Configuration Protocol		

PART – B: (Short Answer Questions)   (2 x 5 = 10 Marks)

Q.2. Answer **ALL** questions

		[CO#]	[PO#]
a.	Group the OSI layers by function.	CO1	PO1
b.	What are the advantages of using UDP over TCP?	CO3	PO1; PO2
c.	What is the principal difference between circuit switching and packet switching?	CO2	PO1
d.	What is the network address in a class A subnet with the IP address of one of the hosts as 25.34.12.56 and mask 255.255.0.0?	CO3	PO1; PO2
e.	Does UDP have flow control mechanism?	CO3	PO1; PO2

PART – C: (Long Answer Questions)   (6 x 5 = 30 Marks)

Answer **ANY FIVE** questions

		Marks	[CO#]	[PO#]
3.	Describe the congestion control algorithms.	(6)	CO2	PO1
4.	Describe the error detecting and correcting techniques employed in data communication.	(6)	CO2	PO1
5.	With a diagram explain TCP connection management.	(6)	CO3	PO1; PO2
6.	Discuss in detail the operation of the HTTP protocol.	(6)	CO1; CO3	PO1; PO2
7.	Considering a network scenario, explain the functions of ARP and RARP protocols with corresponding frame formats.	(6)	CO1	PO1
8.	State the major difference between Distance Vector Routing and Link State Routing. Discusshow these routing techniques work.	(6)	CO3; CO4	PO1; PO2
9.	Perform a comparative study between the ISO OSI model and the TCP/IP reference model.	(6)	CO1	PO1
10.	Explain leaky bucket and token bucket algorithm.	(6)	CO2	PO1

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