REV-00 BCA/20/25

BACHELOR OF COMPUTER APPLICATION Third Semester COMPUTER NETWORKS (BCA - 13)

Duration: 3Hrs.

Part-A (Objective) =20 Part-B (Descriptive) =50

(PART-B: Descriptive)

uration: 2 hrs. 40 mins.

Marks: 50

Full Marks: 70

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Answer any *five* of the following questions

	1.	Write about the OSI refe	rence model.	(10)		
	2.	What is TCP/IP model? Explain the functions, protocol and services of each layer				
1				(3+7=10)		
	3.	What is IP addressing? H	How it is classified? Define UDP.	(3+5+2=10)		
	4.	. What is firewall? Explain the different types of firewall. How does a firewall				
		works?		(3+4+3=10)		
	5.	Discuss various types of networks topologies in computer network. Also discuss				
		various advantages and c	lisadvantages of each topology.	(5+5=10)		
	6.	. Define Circuit switching. What are advantages and disadvantages we get from				
North Colorest	-	circuit switching?		(4+6=10)		
_	2.	Describe Ethernet? Defin	ne Token ring and its use in networking.	(5+5=10)		
10 There	8.	Write short notes on:		(2.5×4=10)		
		a) LAN	b) Broadband technology			
		c) Coaxial cable	d) Packet switching			

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Duration: 20 minutes

(PART A - Objective Type)

I. Choose the correct answer:

- 1. Two devices are in network if
 - a) A process in one device is able to exchange information with a process in another device.
 - b) A process is running on both devices.
 - c) PIDs of the processes running of different devices are same.
 - d) None of the mentioned.

2. In computer network nodes are

- a) The computer that originates the data
- c) The computer that terminates the data
- 3. Communication channel is shared by all the machines on the network in
 a) Broadcast network
 b) Unicast network
 c) Multicast network
 d) None of the mentioned
- 4. Bluetooth is an example ofa) Personal area network
 - c) Virtual private network

b) Local area network

d) All of the mentioned

b) The computer that routes the data

- d) None of the mentioned
- 5. A ______ is a device that forwards packets between networks by processing the routing information included in the packet.
 - a) Bridgeb) Firewallc) Routerd) All of the mentioned
- 6. A list of protocols used by a system, one protocol per layer, is called
 a) Protocol architecture
 b) Protocol stack
 c) Protocol suit
 d) None of the mentioned
- 7. Network congestion occurs
 - a) In case of traffic overloading
 - c) When connection between two nodes terminates
- b) When a system terminates d) None of the mentioned
- Communication between a computer and a keyboard involves _____

transmission. a) Automatic

c) Full-duplex

b) Half-duplexd) Simplex

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1×20=20

2 · · · · · ·

Marks - 20

9.	The is the physical path a) Path b) M c) Protocol d) R	n over v ledium oute	vhich a	message travels.			
10	0.A set of rules that governs data communicationa) Protocolsb) Standardsc) RFCsd) None of the mentioned						
11	.OSI stands for a) Open system interconnection c) Optical service implementatio	n	b) Op d) No	erating system interface ne of the mentioned			
12	a) 4 b) 5 c) 6		d) 7				
13	.TCP/IP model does not have a) Session layer c) Application layer	b) Pro d) Bo	yer but esentation th (a) a	OSI model have this layer. ion layer and (b)			
14	Which layer links the network su a) Session layer c) Transport layer	b) Da d) Ne	ayers a ita link etwork	nd user support layers? layer layer			
15	Which address is used in an inter a) Physical address and logical a c) Specific address	rnet em ddress	ploying	g the TCP/IP protocols? b) Port address d) All of the mentioned			
16	.TCP/IP model was developed a) Prior to c) Simultaneous to	b) Af d) No	e OSI n ter one of t	nodel. he mentioned			
17	.Which layer is responsible for pr a) Network layer c) Session layer	ocess to b) Tra d) Da	o proce ansport ita link	ess delivery? a layer layer			
18	.Which layer provides the service a) Application layer c) Presentation layer	es to use b) Se d) No	er? ssion la one of t	ayer he mentioned			
19	The physical layer concerns with a) Bit-by-bit delivery c) Application to application deli	ivery		b) Process to process deliveryd) None of the mentioned			
20	.Which transmission media has th a) Coaxial cable c) Optical fiber	ne highe b) Tw d) Ele	est tran visted p ectrical	smission speed in a network? pair cable cable			
