Register								
Number								



SRM Institute of Science and Technology College of Engineering and Technology School of Computing

Set - D

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamil Nadu

Academic Year: 2021-22 (Even)

Test: CLA-T2 Date: 30-05-2022

Course Code & Title: 18CSS202J - Computer Communications Duration: 100 Minutes (2 Periods)

Year & Sem: II Year / IV Sem Max. Marks: 50

Course Articulation Matrix:

S.No.	Course Outcome	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
1	CO1	3	-	-	-	-	-	-	-	-	-	-	3
2	CO2	3	2	3	-	-	-	-	-	-	-	-	3
3	CO3	3	3	3	-	-	-	-	-	-	-	-	3
4	CO4	3	2	1	-	-	-	-	-	1	-	1	3
5	CO5	3	-	1	-	-	-	-	-	-	-	-	2
6	CO6	3	3	3	-	-	-	-	-	-	-	-	3

Part - A (20 x 1 = 20 Marks)

Instructions: 1) Answer ALL questions. 2) The duration for answering the part A is 30 minutes (this sheet will be collected after 30 minutes). 3) Encircle the correct answer 4) * denotes more than one choice may be correct

Q. No	Question	Marks	BL	CO	PO	PI Code
1	How many leading bits are in IPV4 Class D address?	1	1	3	1	1.7.1
	a) 4 b) 3 c) 2 d) 1					
2	How many possible networks are there in a class A of an IPv4 address? a) 16384 b) 128 c) 256 d) 65536	1	1	3	2	2.6.3
3	Choose the binary notation of the IPv4 address 11.201.55.223 a) 1011 11001001 110111 11011111 b) 00001011 11000101 00110111 11001111 c) 00001011 11000101 00110111 11001111 d) 00001011 11001001 00110111 11011111	1	2	3	2	2.6.3
4	Choose the class of the given IPV4 address 201.105.121.155 a) B b) C c) A d) D	1	1	3	1	1.7.1
5	A block of addresses is granted to a small organization. We know that one of the addresses is 172.18.25.45/25. What is the first address in the block? a) 172.18.25.0 b) 172.18.25.1 c) 172.18.25.127 d) 128.18.25.45	1	2	3	2	2.6.3
6	The block 224.0.0.0/4 is used for communication. a) Unicast b) Broadcast c) Limited Broadcast d) Multicast	1	2	3	1	1.7.1
7	Combining several class C blocks to create a larger range of addresses is a) Supermasking b) Submasking c) Supernetting d) Subnetting	1	1	3	1	1.7.1

8	Passive hub operates at layer (s)of the OSI model. a) Data link Layer b) Network Layer	1	2	3	1	1.7.1
	c) Presentation Layer d) Physical Layer					
9	Choose the correct statement(s) about bridge. a) It sends data in form of packets b) It uses routing table c) It works on more than single broadcast domains d) It is used to connect various LANs	1	1	3	1	1.7.1
10	Addresses in a block must be contiguous, one after another is one of the restrictions in a) Private Address b) Classful Addressing c) Classless Addressing d) Public Address	1	1	3	1	1.7.1
11	Line coding is the process of converting a) digital data to digital signals b) analog data to digital signals c) digital data to analog signals d) analog data to analog signals	1	1	4	1	1.7.1
12	The clocks at the sender and the receiver must have the same bit interval is a) DC components b) Baseline c) Self synchronization d) Encoding	1	1	4	1	1.7.1
13 *	The defines the number of data elements sent in 1s a) data rate b) signal rate c) pulse rate d) message rate	1	1	4	1	1.7.1
14	 Choose the correct from the following statements; BPSK has a bandwidth which is lower than that of a BFSK signal. BPSK yields the maximum value of probability of error compared to ail the three digital modulation techniques i.e. ASK, FSK and PSK. Binary FSK has the highest system complexity. Binary ASK is demodulated using coherent detection while binary FSK and PSK are demodulated using envelope detection. a) 1 and 3 b) 1,2 and 4 c) 2 and 3 d) 2, 3 and 4 	1	1	4	1	1.7.1
15	a) 1 and 3 b) 1,2 and 4 c) 2 and 3 d) 2, 3 and 4 Calculate the value of the signal rate for the case "Four data elements per three signal elements" if the data rate is 1 Mbps and c = 1/2. a) 500 Kbaud b) 1 Mbaud c) 250 Kbaud d) 375 Kbaud	1	3	4	2	2.6.3
16	is a technique used to combine and send the multiple data streams over a single medium. a) Multiplexing b) Demultiplexing c) Pulse Code Modulation d) Delta Modulation	1	1	4	1	1.7.1
17	In same link is used and link is sectioned by time rather than by frequency a) TDM b) SDM c) CDMA d) FDM	1	1	4	1	1.7.1
18	A technique that allocates time slots dynamically is a) TDM b) WDM c) Dynamic TDM d) Statistical TDM	1	1	4	1	1.7.1
19	The scheme has more signal transitions and therefore requires a wider bandwidth a) Ploar NRZ b) Polar NRZ-I c) Ploar RZ d) Polar RZ-I	1	1	4	1	1.7.1
20	The FDM demultiplexer uses a series of to decompose the multiplexed signal into its constituent signals a) guard bands b) filters c) repeaters d) amplifiers	1	1	4	1	1.7.1

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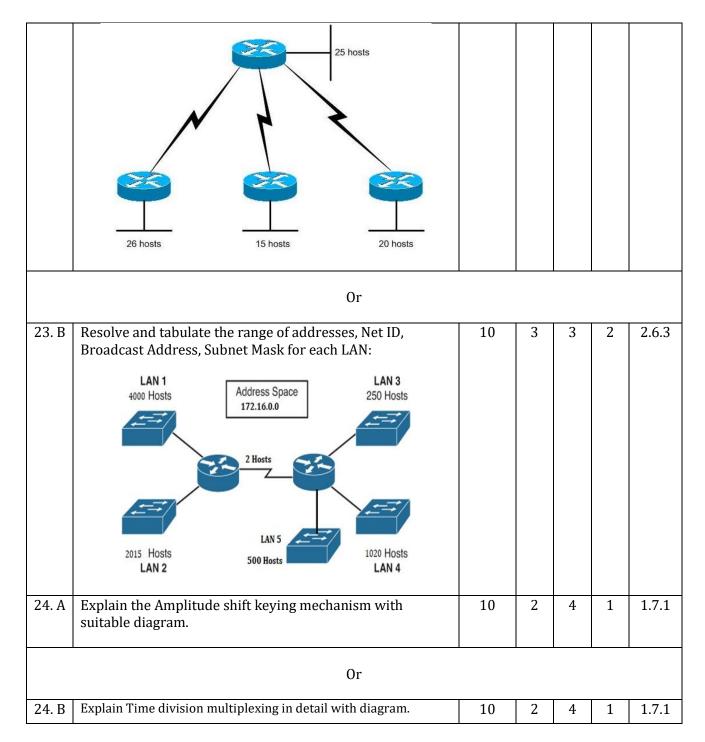
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Part - B $(2 \times 5 = 10 \text{ Marks})$ **Instructions: Answer ALL questions** BLPO PI Code Q. No Question Marks \mathbf{CO} 21 5 3 3 2 Identify the addressing range for the hosts in the given 2.6.3 scenario, for the network 192.168.100.0 25 Hosts S0/0/0 25 Hosts 25 Hosts G0/0 S0/0/0 25 Hosts 22 Define a DC component and its effect on digital 5 2 4 1 1.7.1 transmission.

Instru	Part - C (2 x 10 = 20 Marks) Instructions: Answer ANY two questions										
Q. No	Question	Marks	BL	CO	PO	PI Code					
23. A	Solve the below given scenario using VLSM for the network 192.168.15.0 and list out the addressing range of all subnets in detail.	10	3	3	2	2.6.3					



Course Outcome (CO) and Bloom's level (BL) Coverage in Questions

