


Name:	
Enrolment No:	
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES	
End Semester Examination, May 2020	
Course: Data Communication and Computer Networks	
Semester: II	
Code: CSEG 7004	
Time: 10.00 AM – 1.00 PM	
Programme: M.Tech CSE	
Max. Marks: 100	
Total 60 MCQ	

CO	Questions	Total Marks	2 Marks Ques	1 Mark Ques
CO1	15	25	10	5
CO2	15	25	10	5
CO3	15	25	10	5
CO4	15	25	10	5

Instructions: Total Questions 60, Total Points 100

M C	How many layers are there in TCP model	5	incorrect	4	correct	6	incorrect	7	incorrect
M C	Which is the 2nd layer of OSI model	Physical layer	incorrect	Network Layer	incorrect	Transport	incorrect	Data Link	correct
M C	Which topology requires central hub or control?	bus	incorrect	ring	incorrect	star	correct	tree	incorrect
M C	How many connecting wires are required in a mesh topology of 10 nodes	35	incorrect	40	incorrect	45	correct	50	incorrect
M C	Routers can become gateway when	Two different networks are used	correct	two different LAN networks	incorrect	Can not become both are different	incorrect	Both are same	incorrect

M C	We have a channel with a 1 MHz bandwidth. The SNR for this channel is 63; what is the appropriate bit rate and signal level?	3	incorrect	4	correct	5	incorrect	6	incorrect
M C	If the power of a signal is 10 mW and the power of the noise is 1 ?W. What is the value of SNR in dB?	1000,20	incorrect	10000,40	correct	10000,20	incorrect	1000,40	incorrect
M C	The protocol	message	correct	frame	incorrect	data	incorrect	packets	incorrect

	data unit(PDU) for the application layer in the Internet stack is								
M C	Which of the following transport layer protocols is used to support electronic mail?	SMTP	incorrect	IP	incorrect	TCP	correct	UDP	incorrect
M C	how to identify noise in a channel? By	disturbance	incorrect	distortion	incorrect	Signal to noise	correct	quality of signal	incorrect
M C	In the OSI model, when data is	data link layer	incorrect	network layer	incorrect	Transport	correct	session layer	incorrect

	transmitted from device A to device B, the header from A's layer 4 is read by B's _____ layer								
M C	IEEE 802.3 is a standard in which layer	Physical layer	correct	data link layer	incorrect	network layer	incorrect	application	incorrect
M C	Process to process communication works in transport layer	TRUE	correct	FALSE	incorrect	cant say	incorrect	none	incorrect
M C	Ports are part of communication	ture	correct	FALSE	incorrect	may be	incorrect	none	incorrect

M C	NIC is similar to	Communication card	correct	Network Internet Card	incorrect	Network Intranet Card	incorrect	Node Interface Card	incorrect
M C	PDU in data link layer is	packets	incorrect	frames	correct	data	incorrect	message	incorrect
M C	For checking error in data sent on DLL which concept is used?	Header	incorrect	dialog control	incorrect	parity	correct	SN ratio	incorrect
M C	Hamming codes are used for?	Error Detection	incorrect	Error correction	incorrect	Both	correct	None	incorrect
M C	In CRC checksum method, assume that given frame for transmission is 1101011011	1.11011E+13	incorrect	1.10101E+14	incorrect	1.10101E+13	correct	1.10101E+14	incorrect

	and the generator polynomial is $G(x) = x^4 + x + 1$. After implementing CRC encoder, the encoded word sent from sender side is _____.								
M C	What is maximum efficiency percentage of value of G that can be attained in slotted aloha	18.4	incorrect	25.4	incorrect	36.8	correct	46.7	incorrect

M C	Binary exponential backoff is a mechanism used in some MAC protocols. Which of the following statements is correct?	It ensures that two nodes that experience a collision in a time slot will never collide with each other when they each retry that packet.	incorrect	It ensures that two or more nodes that experience a collision in a time slot will experience a lower probability of colliding with each other when they each retry that packet.	correct	It can be used with slotted Aloha but not with carrier sense multiple access.	incorrect	Over short time scales, it improves the fairness of the throughput achieved by different nodes compared to not using the mechanism.	incorrect
M C	When data and acknowledgment are sent in the same frame, this	Piggybacking	incorrect	Piggybacking	correct	Piggypacking	incorrect	backoff	incorrect

	technique is called as:								
M C	The hamming distance between 001111 and 010011 is.	1	incorrect	2	incorrect	3	correct	4	incorrect
M C	Which network is a cross between a circuit switched network and a datagram network?	Virtual-circuit network	correct	Circuit-switched network	incorrect	Virtual-circuit identifier	incorrect	none	incorrect
M C	Which of the data link layer is based on automatic repeat request,	Error Control	correct	Flow Control	incorrect	Dialog Control	incorrect	Congestion Control	incorrect

	which is the retransmission of data?								
M C	Which address, also known as the link address, is the address of a node as defined by its LAN or WAN.	Logical Address	incorrect	Physical Address	correct	Broadcast Address	incorrect	None	incorrect
M C	Which is used by a host to test itself without going into the network?	Compatible address	incorrect	Loop back address	correct	Mapped address	incorrect	Network address	incorrect
M C	What conclusion can be	Non reception of frame and	correct	No necessity of working in duplex mode for the host	incorrect	No necessity to prevent the signal fading	incorrect	all of above	incorrect

	drawn if the collision is detected in CSMA CD algorithm while controlling the access in wireless LANs?	necessity of retransmission							
M C	Which is best protocol for efficiency	stop and wait	incorrect	go back n	incorrect	selective repeat	correct	piggybacking	incorrect
M C	What is the maximum window size for data transmission Using Selective Repeat protocol with n-bit	2^n	correct	$(2^n)-1$	incorrect	n	incorrect	n-1	incorrect

	frame sequence number?								
M C	Which of the following is not true about Subnetting?	It can be applied only for single network	correct	It is used to improve security.	incorrect	Here, bits are borrowed from network ID portion	incorrect	Here, bits are borrowed from host ID	incorrect
M C	What is the maximum size of data that the application layer can pass on to the TCP layer below?	Any size	correct	2 ¹⁶ bytes-size of TCP header	incorrect	2 ¹⁶ bytes	incorrect	1500 bytes	incorrect
M C	In IPV 4, the IP address 200.200.200.200 belongs to	Class A	incorrect	Class B	incorrect	Class C	correct	Class D	incorrect

M C	What is the size (in terms of bits) of Header length field in IPV4 header?	2	incorrect	4	correct	8	incorrect	16	incorrect
M C	Which is also known as a connectionless protocol for a packet-switching network that uses the Datagram approach?	IPV4	correct	IPV6	incorrect	TCP	incorrect	none	incorrect
M C	Which of these in TCP is achieved through the	Error Detection	incorrect	Error correction	incorrect	Error Detection and Correction	correct	None	incorrect

	use of three simple tools: checksum, acknowledgment, and time-out?								
M C	Which is an intradomain routing protocol used inside an autonomous system.	RIP	correct	BGP	incorrect	OSPF	incorrect	None	incorrect
M C	Which one of the following is used when the response data size exceeds 512 bytes?	UDP	incorrect	TCP	correct	IP	incorrect	IMAP	incorrect

M C	Routing Outside a network is called?	Interdomain routing	correct	Intrane domain routing	incorrect	both	incorrect	none	incorrect
M C	What is route poisoning?	It sends back the protocol received from a router as a poison pill, which stops the regular updates. The use of variable length subnet masks is permitted	incorrect	It describes when a router sets the metric for a downed link to infinity	correct	It prevents regular update messages from reinstating a route that has just come up	incorrect	It is information received from a router that can't be sent back to the originating router.RIP v2 supports classless routing	incorrect
M C	Which form of byte assigning strategy is adopted in	Network.Node.Node	incorrect	Network.Network.Node	correct	Network.Network.Network	incorrect	None	incorrect

	class B type of network corresponding to IP addresses?								
M C	Header of a packet in transport layer has FIN and ACK up, it means?	initialing finish	incorrect	Sending Acknowledgement	incorrect	both a and b	correct	none	incorrect
M C	Dijkstra's algorithm is used in which routing algorithm?	Distance Vector	incorrect	link state routing	correct	OSPF	incorrect	None	incorrect
M C	Which routing protocol uses distance to	Path vector routing	incorrect	link state routing	incorrect	distance vector routing	correct	OSPF	incorrect

	next hops as its metric								
M C	Which mechanism/s is/are extremely essential in data link and transport layers in accordance to operational services offered by the transport protocols?	Buffering	incorrect	Flow Control	incorrect	both a and b	correct	None	incorrect
M C	Transport layer protocols deals with _____ _____	Node to node delivery	incorrect	process to process delivery	correct	application to application	incorrect	none	incorrect

M C	Most packet switches use this principle _____	store and forward	correct	store and wait	incorrect	stop and wait	incorrect	None	incorrect
M C	Which of the following is application layer service?	Network virtual terminal	incorrect	File transfer, access, and management, Mail service	incorrect	both	correct	error detection and correction	incorrect
M C	HTTP and HTTPS protocols work in layer?	Network Layer	incorrect	Application Layer	correct	Transport layer	incorrect	session layer	incorrect
M C	How is packet switching datagram networks are better	they move faster	incorrect	its unrelaible service which can take different routes for different packets	correct	its relaible service which can take similer and faster routes for different packets	incorrect	it works with lesser congested paths	incorrect

M C	Session layer can manage which service	error control	incorrect	security	incorrect	Dialog Control	incorrect	session communication	correct
M C	The _____ Layer is responsible for interoperability between two systems using two different encoding schemes	data link layer	incorrect	Network Layer	incorrect	Transport layer	incorrect	presentation layer	correct
M C	Name of the layer responsible for translating, encrypting and	data link layer	incorrect	Network Layer	incorrect	Transport layer	incorrect	presentation layer	correct

	compressing data within the OSI model?								
M C	Network virtual terminal is a service of	Network Layer	incorrect	Transport layer	incorrect	presentation layer	incorrect	application layer	correct
M C	HTTP protocol port number is	40	incorrect	80	correct	120	incorrect	160	incorrect
M C	GET method in HTTP is requesting a document from server	FALSE	incorrect	TRUE	correct	insufficient statement	incorrect	none	incorrect
M C	What is a Socket equivalent to	MAC	incorrect	IP address and Port	correct	IP address and MAC	incorrect	MAC and Port	incorrect

M C	Which is a unreliable service?	IP + TCP	incorrect	IP+UDP	correct	IP+ SNMP	incorrect	IP+FTP	incorrect
M C	Email inetreface is a service of layer	Phycical layer	incorrect	Application Layer	correct	Network Layer	incorrect	session layer	incorrect
M C	Encapsulati on is done when data moves from	Application to Physical	incorrect	Never Occurs	incorrect	Physical to application	correct	While data transmissi on	incorrect
M C	Encryption of data means	compression	incorrect	rearranging data	incorrect	encoding data in different format	correct	None	incorrect
M C	Which layers are optional in TCP model	Application layer	incorrect	Physical , network and presnetation	incorrect	physical,session, presentation	correct	physical, data link layer	incorrect