

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Supplementary Winter Examination 2024

Course: B.Tech

Branch : Computer Engg/Computer Science & Engg

Semester :VI

Subject Code & Name: Computer Networks BTCOC602

Max Marks: 60

Date: 20/12/2024

Duration: 3 Hr.

Instructions to the Students:

1. Each question carries 12 marks.
2. Question No. 1 will be compulsory and include objective-type questions.
3. Candidates are required to attempt any four questions from Question No. 2 to Question No. 6.
4. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
5. Use of non-programmable scientific calculators is allowed.
6. Assume suitable data wherever necessary and mention it clearly.

		(Level/CO)	Marks
Q. 1	Objective type questions. (Compulsory Question)		12
1	The is responsible for moving individual bits from one node to the next.	understand	1
	a.Data link b. Physical c. Transport d. Network		
2	ISO is the organization; OSI is thein Computer Network.	understand	1
	a. Network b. Domain c. Model d. Method		
3	The X.25 is a	understand	1
	a.Topology b. Protocol c. Network d.Routing Tech.		
4	A Bluetooth network is called a	understand	1
	a. Ethernet b. supernet c. subnet d. piconet		
5	The unit of communication at the data link layer is a	understand	1
	a. segment b.datagram c. Frame d. packet		
6	Which of the following tasks is not done by data link layer?	Analyze	1
	a.flow control b.error control c. chan. coding d.framing		
7	A 4 byte IP address consists of _____	understand	1
	a. only network address b. only host address c.network add. & host address d.network add. & MAC address		

8	A _____ is a TCP name for a transport service access point.				understand	1
	a. pipe	b. port	c. node	d. protocol		
9	The domain name system is maintained by _____				analyze	1
	a. a single server	b. a single computer	c. distributed database sys.	d. none of the mentioned		
10	FTP uses _____ parallel TCP connections to transfer a file.				understand	1
	a. 1	b. 3	c. 2	d. 4		
11	Network layer firewall works as a _____				understand	1
	a. Frame filter	b. Packet filter	c. Content filter	d. Virus filter		
12	Which is not an objective of network security?				analyze	1
	a. Identification	b. Authentication	c. Access control	d. Lock		
Q. 2 Solve the following.						12
A) Explain functions of various layers in TCP/IP model in brief.					understand	6
B) Draw Ethernet frame format and explain function of each field.					analyze	6
Q.3 Solve the following.						12
A) Given the dataword 1101101 and the divisor is 10101, generate the cyclic redundancy check (CRC) codeword at the sender site.					Apply	6
B) Draw UDP header format and explain its working					understand	6
Q. 4 Solve Any Two of the following.						12
A) Illustrate byte count and bit stuffing framing techniques .					understand	6
B) Explain ipv4 classful addressing in detail.					Understand	6
C) Describe various congestion control policies of TCP in brief.					Analyze	6
Q.5 Solve Any Two of the following.						12
A) Compare SMTP and POP protocols.					Analyze	6
B) Describe working of FTP in detail.					Understand	6
C) Explain Distance vector routing with suitable example.					analyze	6

Q. 6	Solve Any Two of the following.		12
A)	<p>The following is a dump of a TCP header in hexadecimal format</p> <p>053200217 000000001 00000000 500207FF 00000000</p> <p>1) What is the source port number?</p> <p>2) What is the destination port number?</p> <p>3) What is sequence number?</p> <p>4) What is the acknowledgement number?</p> <p>5) What is the length of the header?</p> <p>6) What is the window size?</p>	apply	6
B)	Illustrate with example public key and private key cryptography	understand	6
C)	Explain design issues of data link layer.	understand	6
	*** End ***		