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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

October 2024 Supplementary Examinations

Programme: B.E.

Branch: Information Science and Engineering

Course Code: 22IS6PCCN2

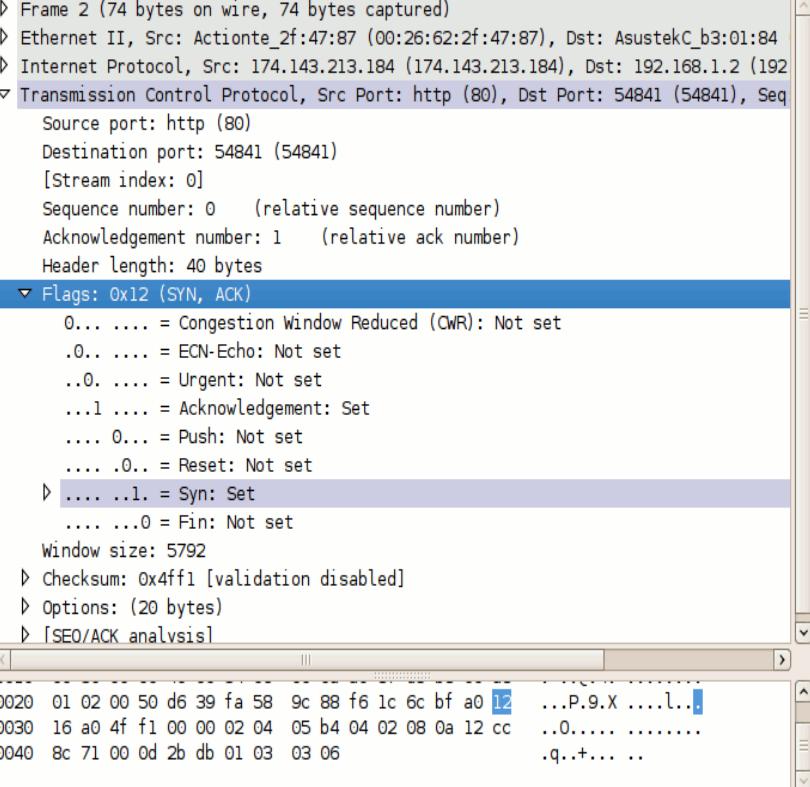
Course: Computer Networks-2

Semester: VI

Duration: 3 hrs.

Max Marks: 100

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I			CO	PO	Marks
1	a)	Explain three way hand shake with a neat diagram	CO1		06
	b)	Identify the role of TSAP and NSAP in helping an application process to set up a connection to a remote application process.	CO2	PO1	06
	c)	<p>Frame 2 (74 bytes on wire, 74 bytes captured)</p> <p>Ethernet II, Src: Actionte_2f:47:87 (00:26:62:2f:47:87), Dst: AsustekC_b3:01:84</p> <p>Internet Protocol, Src: 174.143.213.184 (174.143.213.184), Dst: 192.168.1.2 (192</p> <p>Transmission Control Protocol, Src Port: http (80), Dst Port: 54841 (54841), Seq</p> <p>Source port: http (80)</p> <p>Destination port: 54841 (54841)</p> <p>[Stream index: 0]</p> <p>Sequence number: 0 (relative sequence number)</p> <p>Acknowledgement number: 1 (relative ack number)</p> <p>Header length: 40 bytes</p> <p>Flags: 0x12 (SYN, ACK)</p> <ul style="list-style-type: none"> 0... = Congestion Window Reduced (CWR): Not set .0... = ECN-Echo: Not set ..0.... = Urgent: Not set ...1.... = Acknowledgement: Set 0... = Push: Not set0... = Reset: Not set1. = Syn: Set0. = Fin: Not set <p>Window size: 5792</p> <p>Checksum: 0x4ff1 [validation disabled]</p> <p>Options: (20 bytes)</p> <p>[SEQ/ACK analysis]</p>  <p>Identify the TCP header fields from the above wire shark. Identify whether it is client or Server? Justify. Why header length is 40 bytes? Justify your answer.</p>	CO3	PO2	08
UNIT - II					
2	a)	When client trying to establish connection with server, it can be possible in two ways while using socket programming ie.,	CO2	PO1	10

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

		concurrent server and iterative server. Give the differences between them using a flowchart.			
	b)	Write an algorithm and socket program of UDP Echo server	CO2	PO1	10
UNIT - III					
3	a)	Describe in detail the services provided by DNS and Explain the DNS message format.	CO1		06
	b)	Consider the resolution of the domain name www.bmsce.ac.in by a DNS resolver. Assume that no resource records are cached anywhere across the DNS servers and that iterative query mechanism is used in the resolution. Identify the number of DNS query-response pairs involved in completely resolving the domain name. Justify your answer with a neat diagram and detailed explanation.	CO2	PO1	10
	c)	Give the usages of MIME protocol? Give reasons why the MIME header is required? Highlight any two features of MIME.	CO1,2	PO1	04
OR					
4	a)	Illustrate with a neat diagram recursive process of DNS querying.	CO2	PO1	10
	b)	Compare between IMAP and POP3.	CO2	PO1	05
	c)	Suppose Alice, with a Web-based e-mail account (such as Hotmail or gmail), sends a message to Bob, who accesses his mail from his mail server using POP3. Discuss how the message gets from Alice's host to Bob's host. Be sure to list the series of application-layer protocols that are used to move the message between the two hosts.	CO3	PO2	05
UNIT - IV					
5	a)	To stream stored audio video, explain following two approaches with neat diagram i. Using a Web Server with Metafile ii. Using a Media Server and RTSP	CO2	PO1	10
	b)	Jitter is introduced in real-time data by the delay between packets. Explain how to handle Jitter in real time streaming mode.	CO2	PO1	05
	c)	Justify the need of Contributor Count(CC) and Synchronization source (SSRC) fields in RTP header.	CO2	PO1	05
OR					

	6	a)	Provide the sequence diagram which depicts tracking callee after establishing the SIP connection to exchange audio.	<i>CO2</i>	<i>PO1</i>	10
		b)	Differentiate between SIP and H323.	<i>CO2</i>	<i>PO1</i>	05
		c)	Explain weighted fair queuing process implemented to provide Integrated QoS.	<i>CO1</i>		05
UNIT - V						
	7	a)	Explain five functions of network management system	<i>CO1</i>		06
		b)	Construct the MIB Structure for the OID/ASN.1 1.3.6.1.4.1.2.6 Explain the following OID	<i>CO2</i>	<i>PO1</i>	08
		c)	What are the 5 types of SNMP messages? Explain.	<i>CO1</i>		06
