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

Autonomous Institute Affiliated to VTU

October 2024 Supplementary Examinations

Programme: B.E.   **Semester: VI**
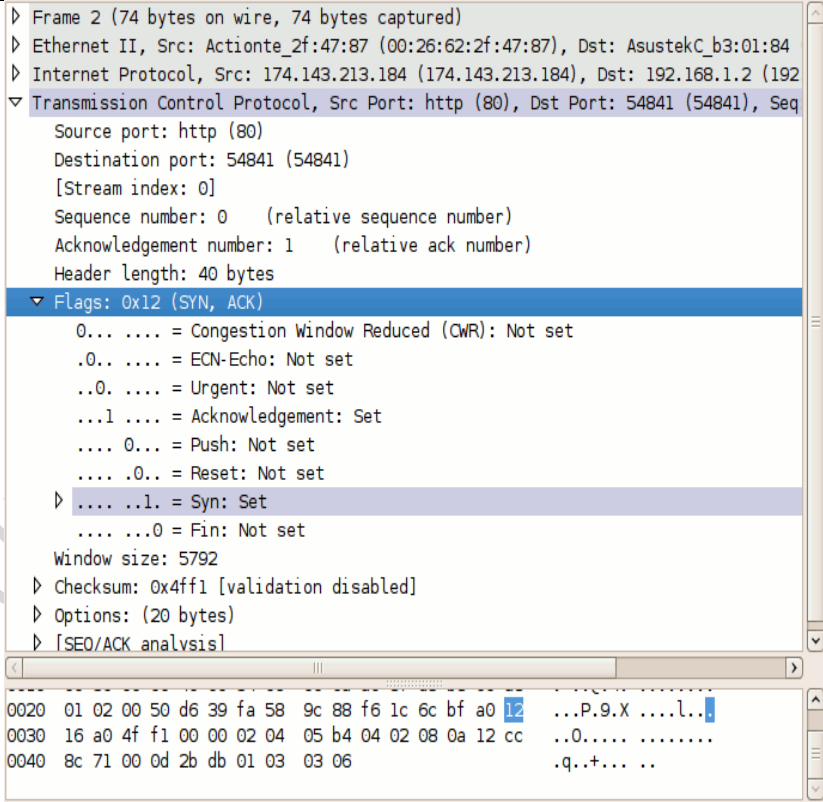**Branch: Information Science and Engineering**   **Duration: 3 hrs.**
Course Code: 22IS6PCCN2   **Max Marks: 100**
Course: Computer Networks-2
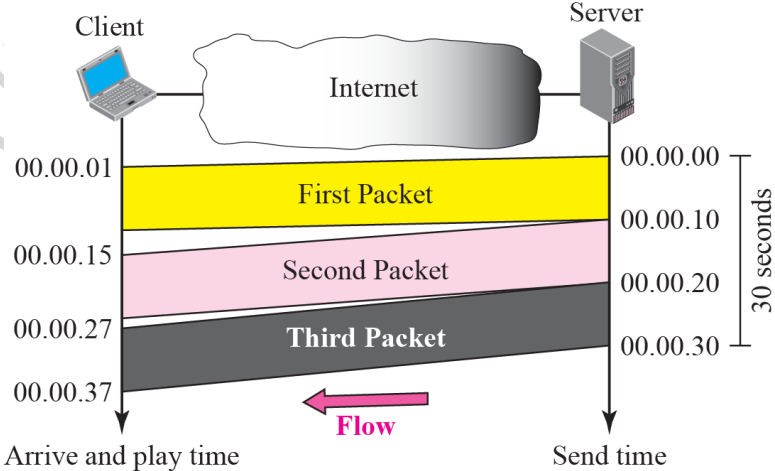
Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

			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)		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.	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**

			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.	CO2	PO1	10
	b)	Differentiate between SIP and H323.	CO2	PO1	05
	c)	Explain weighted fair queuing process implemented to provide Integrated QoS.	CO1		05
		UNIT - V			
7	a)	Explain five functions of network management system	CO1		06
	b)	Construct the MIB Structure for the OID/ASN.1 1.3.6.1.4.1.2.6 Explain the following OID system — 1.3.6.1.2.1.1 interfaces — 1.3.6.1.2.1.2 Udp — 1.3.6.1.2.1.7	CO2	PO1	08
	c)	What are the 5 types of SNMP messages? Explain.	CO1		06

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