Register Number:……..

KUMARAGURU
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B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2023

(Regulation 2018)

Fifth Semester

ELECTRONICS AND COMMUNICATION ENGINEERING

U18ECI5203: Communication Networks

COURSE OUTCOMES

CO1: Describe network topologies, protocols and models.
CO2: Demonstrate and analyse data link layer protocols and LAN standards.
CO3: Analyze routing algorithms and methods to improve QoS.
CO4: Summarize transport layer protocols and congestion controls methods
CO5: Describe various application layer services.
CO6: Implement and Analyze cryptographic and security techniques.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

1.	Assume 6 devices are arranged in a mesh topology. How many cables are needed? How many ports are needed for each device?	CO1	[K_3]
2.	How do guided media differ from unguided media?	CO1	[K_2]
3.	Compare sliding window protocol and stop and wait protocol.	CO2	[K_2]
4.	Mention the advantages of FDDI.	CO2	[K_1]
5.	Choose the class of the following IP address. (a) 110.34.56.45 (b) 212.208.63.23	CO3	[K_3]
6.	Distinguish packet switching and datagram approach	CO3	[K_3]
7.	List the Real-Life Examples of TCP	CO4	[K_1]
8.	Identify the usage of conditional get in HTTP.	CO5	[K_4]
9.	Differentiate active and passive attack.	CO6	[K_3]
10.	Justify the Diffie Hellman key exchange protocol vulnerable to intruder in the middle attack	CO6	[K_3]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Briefly explain any one method used for data communication using guided media and unguided media. Estimate your idea on how guided media differ from unguided media?	8	CO1	[K_2]
	b)	Explain the layered architecture of OSI-ISO model.	8	CO1	[K_2]
12.	a)	Explain the operation of IEEE 802.5 in detail with neat diagrams.	10	CO2	[K_2]
	b)	Compare Go-Back - N and Selective Repeat ARQ methods	6	CO2	[K_2]
13.	a)	Draw and explain IPV4 format	10	CO3	[K_2]
	b)	Justify in what ways IPV6 is better than IPV4	6	CO3	[K_2]
14.	a)	Examine how SMTP transfers message from one host to another with suitable illustration.	10	CO4	[K_2]
	b)	Describe in detail about DNS and its frame format.	6	CO4	[K_2]
15.		Enumerate on DES algorithm in detail with neat sketches	16	CO5	[K_2]
16.		Explain the RSA algorithm and also solve this RSA with p=7,q=11,e=17,M=8. Discuss its merits.	16	CO5	[K_3]

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