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VELAGAPUDI RAMAKRISHNA

SIDDHARTHA ENGINEERING COLLEGE

(AUTONOMOUS)

III/IV B.Tech. DEGREE EXAMINATION, DECEMBER, 2022

Fifth Semester

INFORMATION TECHNOLOGY

20IT5301 COMPUTER NETWORKS

Time: 3 hours ***Max. Marks: 70***

Part-A is compulsory

Answer One Question from each Unit of Part - B

Answer to any single question or its part shall be written at one place only

PART-A

10 x 1 = 10M

1.	a.	Define LAN.	**(CO1 K1)**
	b.	Define circuit switching.	**(CO1 K1)**
	c.	What is web caching?	**(CO3 K1)**
	d.	What is addressing processes?	**(CO3 K1)**
	e.	What is forwarding?	**(CO3 K1)**
	f.	Define one bit parity bit.	**(CO3 K1)**
	g.	Define wireless host.	**(CO1 K1)**
	h.	Illustrate cipher.	**(CO2 K2)**
	i.	Define transposition ciphers.	**(CO2 K1)**
	j.	Decide whether firewall is safe or not? Write the reason.	**(CO2 K5)**

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PART-B

4 x 15 = 60M

UNIT-I

2. a. With neat diagram explain about LAN, WAN, MAN. **(CO1 K2) 8M**

   b. Summarize design issues for the layers. **(CO1 K2) 7M**

(or)

3. a. Explain about Packet Switching with neat diagram. **(CO1 K2) 7M**

   b. Briefly explain about OSI Reference Architecture. **(CO1 K2) 8M**

UNIT-II

4. a. Write overview of HTTP. **(CO3 K1) 7M**

   b. Write about Non Persistent & Persistent Connections. **(CO3 K1) 8M**

(or)

5. a. Explain about File Transfer Protocol. **(CO3 K2) 7M**

   b. Explain about principles of congestion control. **(CO3 K2) 8M**

UNIT-III

6. a. Summarize about Datagram Networks. **(CO3 K2) 7M**

   b. Explain Distance Vector Routing algorithm in detail. **(CO4 K2) 8M**

(or)

7. a. Write a short note on Cyclic Redundancy Check (CRC). **(CO2 K1) 8M**

   b. Outline about Ethernet. **(CO1 K2) 7M**

UNIT-IV

8. a. Explain Introduction of Wireless Links & Network Characteristics. **(CO1 K2) 7M**

   b. Demonstrate the architecture of 802.11. **(CO1 K2) 8M**

(or)

9. a. Explain DES algorithm with neat diagram. **(CO2 K2) 8M**

   b. Solve the RSA algorithm with example. **(CO2 K3) 7M**

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