Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BVOC- SEMESTER– VI EXAMINATION – SUMMER 2023

Subject Code:1160203   **Date:27-06-2023**

Subject Name:Computer Network Security

Time:10:30 AM TO 12:30 PM   **Total Marks:50**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	Explain following networking terms in brief: HTTP, HTTPS, SMTP, Telnet, ADSL	**05**
	(b)	Draw and explain OSI Model in detail. Explain functionality of each layer.	**05**
Q.2	**(a)**	Explain various switching technologies.	**05**
	(b)	Discuss various LAN Switch types.	**05**
		OR	
	(b)	Discuss Half and Full-Duplex Ethernet in detail.	**05**
Q.3	**(a)**	Write a short note on Virtual LAN.	**05**
	(b)	Differentiate IPv4 and IPv6.	**05**
		OR	
Q.3	**(a)**	What is IP address? Explain sub netting with example.	**05**
	(b)	Explain the use of following Internet Layer Protocols: IP, ARP, RARP, ICMP	**05**
Q.4	**(a)**	How DHCP protocol works? Explain it in detail.	**05**
	(b)	Differentiate TCP and UDP.	**05**
		OR	
Q.4	**(a)**	Discuss transport layer multiplexing and De multiplexing concept.	**05**
	(b)	Explain email architecture and email protocols.	**05**
Q.5	**(a)**	Define Cryptography and Cryptanalysis. Draw and explain conventional cryptosystem.	**05**
	(b)	Write a short note on "Digital Signature Algorithm".	**05**
		OR	
Q.5	**(a)**	Explain data confidentiality, data authentication and data integrity.	**05**
	(b)	Explain Playfair cipher technique in detail. Find cipher text for plain text 'GTUCNSEXAM' using 'STUDY' as key.	**05**

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