CS-IS-EXTRA

Extra

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

May-June : 2024-2025
(B. Tech.) Program: Computer Engineering Scheme: IIB
Regular: TY Semester: VI
Course Code: CEDLC6053 and Course Name: Infrastructure security
Date of Exam: 29/5/25 Duration: 02.5 Hours Max. Marks: 60

Instructions:
(1)All questions are compulsory.
(2)Draw neat diagrams wherever applicable.
(3)Assume suitable data, if necessary.

Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any **two** questions out of three: (05 marks each)	10		
a)	Apply the concept of memory protection to mitigate buffer overflow attacks in an operating system		CO2	Ap
b)	Demonstrate how to configure WIDS for detecting deauthentication attacks in a public Wi-Fi environment.		CO3	Ap
c)	Apply access control models (DAC, MAC, RBAC) to design a secure authentication system for a corporate network.		CO6	Ap
Q 2	Solve any **two** questions out of three: (05 marks each)	10		
a)	Apply encryption techniques to secure sensitive data transmission over IEEE 802.11x networks		CO1	Ap
b)	Explain the differences between GSM and 4G security protocols in terms of encryption and key management		CO2	U
c)	Apply firewall rules to prevent unauthorized access in a VPN setup for a corporate environment.		CO4	Ap
Q.3	Solve any **two** questions out of three. (10 marks each)	20		
a)	Develop a comprehensive security policy to protect a 5G network against DDoS and data interception attacks		CO1	Ap
b)	Explain how file system security in Windows differs from Linux in terms of access control mechanisms.		CO2	U
c)	Implement security measures to mitigate SIM swapping attacks in GSM and 4G networks		CO5	Ap

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Q.4	Solve any **two** questions out of three. (10 marks each)	20		
a)	Analyze how IEEE 802.11x authentication mechanisms prevent unauthorized access and data breaches		CO3	An
b)	Apply principles of risk management to design a secure mobile device architecture for corporate use.		CO5	Ap
c)	Discuss the evolution of security protocols in cloud computing, focusing on encryption and authentication advancements.		CO4	U

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