



# VIT<sup>®</sup>

Vellore Institute of Technology  
(Deemed to be University under section 3 of the UCA, Act, 1976)

Reg. No. :

21BCES067

## Final Assessment Test (FAT) - May 2024

Programme	B.Tech.	Semester	WINTER SEMESTER 2023 - 24
Course Title	INFORMATION SECURITY MANAGEMENT	Course Code	BCSE354E
Faculty Name	Prof. Avuthu Avinash Reddy	Slot	TB2
		Class Nbr	CH2023240503259
Time	3 Hours	Max. Marks	100
General Instructions:			
• Write only Register Number in the Question Paper where space is provided (right-side at the top) & do not write any other details.			

### Answer all questions (10 X 10 Marks = 100 Marks)

01. Let us consider you are the lead network administrator for an ABC company, you're suddenly inundated with reports of network connectivity disruptions possibly stemming from firewall malfunctions. Your team is tasked with swiftly resolving these issues to ensure uninterrupted business operations. As a lead mention some effective troubleshooting steps that can be employed to diagnose and address potential firewall issues, safeguarding seamless operations for our organization with a neat diagram. [10 Marks] [10]
02. Imagine you're leading a cybersecurity team tasked with fortifying a corporate network against ever-evolving threats. Given the limitations of signature-based intrusion prevention systems (IPS), how might you devise a next-generation IPS solution capable of proactively identifying and thwarting emerging threats without impeding the flow of regular network activities? Consider various innovative approaches and technologies that could be integrated into your system to achieve these objectives while ensuring seamless network operation. [10 Marks] [10]
03. Assume that you are an information security analyst in the banking sector. If you experience a surge in encrypted network traffic after hours and consider the signature-based IDS remains silent then how can you adapt the IDS to identify potential financial fraud while minimizing disruption to legitimate operations? [10 Marks] [10]
04. Imagine that you are appointed as a Leader Head for an organization. Assume that there are several organizations located in different countries and their heads are coming under your guidance. Though the heads are widely dispersed with varying climates, dressing, languages, communication styles, and cultural backgrounds how can you communicate effectively and preferred methods of communication towards achieving success in critical collaborative work? [10 Marks] [10]
05. Production speed is given precedence above the enforcement of safety rules in a plant. Although this method initially boosts performance, there has been a recent increase in little mishaps and comments about weariness from employees. How do you inform the plant management of the [10]



long-term effects of putting output ahead of health and safety? [10 Marks]

06. Fake accounts on social networking apps are extremely common and are used to disseminate false information. As an expert how do you analyze to recognize these accounts and suggest countermeasures against upcoming attacks? [10 Marks]
07. Knowledge experts in a business have always depended on data to extract useful information to make a profit. If there is any threat to that data then as an information security expert how will you create a data privacy-focused rule? How can you manage global legislation, maintain clear communication with a very broad audience, and strike the correct balance between responding to user privacy concerns and the need for data privacy? [10 Marks]
08. How can individuals effectively prioritize and integrate the various methodologies and learning styles into their personal and professional development plans to ensure continuous growth and relevance in today's rapidly changing work environment? [10 Marks]
09. Imagine you've discovered a violation in the organization's data quality standards, where certain data sets are not meeting the specified parameters. How would you address this issue, ensuring that data integrity is maintained while also rectifying the situation to meet the organization's quality standards? [10 Marks]
10. As the lead for the software development team of a social networking app, ensuring the security and classification of users' data, as well as maintaining server security, is paramount. So, how do you plan to secure and classify the users' data to ensure privacy and compliance with regulations, while also implementing measures to maintain the security of our server infrastructure to prevent unauthorized access or data breaches? [10 Marks]

