


Name: Enrolment No:			
UPES Supplementary Examination, December 2023			
Course: IT Application & Data Security Program: B. Tech CSE (Blockchain Technology) Course Code: CSSF 2005		Semester: III Time: 03 hrs. Max. Marks: 100	
Instructions:			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q1	Name any five types of computer viruses.	4	CO1
Q2	What are malwares? Citing examples discuss based on what attributes malwares are classified.	4	CO2
Q3	How is virus different from a malware?	4	CO3
Q4	What is data masking? What is achieved via this technique?	4	CO4
Q5	Explain what is meant by identity theft.	4	CO5
SECTION B (4Qx10M= 40 Marks)			
Q 6	Compare a wired network from a wireless network. Analyzing the threat techniques justify the statement “Wireless networks are less secured compared to wired networks”.	10	CO1
Q7	Identify the secure ways of data Erasure. Mention any two problems associated with Data Erasures.	10	CO2
Q8	Differentiate between Brute force attack and Dictionary attack. List any two countermeasures against Brute force attacks.	10	CO3
Q9	Describe buffer overflow attacks and distinguish between heap buffer overflow and stack buffer overflow. OR Explain role of cryptographic techniques in data security. Discuss the prevalent techniques of data encryption.	10	CO4
SECTION-C (2Qx20M=40 Marks)			

Q 10	<p>Review in detail the various data and application security threats. Also, elaborate the applicable countermeasures for mitigating each reviewed threat technique.</p> <p style="text-align: center;">OR</p> <p>Elaborate the following for a) SQL Injection attack and b) Cross Site Scripting attack</p> <ul style="list-style-type: none"> i) Methodology of threat technique execution. ii) Situations that make applications vulnerable to these attacks iii) Countermeasures for these attacks iv) Challenges in implementing mentioned countermeasures 	20	CO3
Q11	<p>Highlight how logs are useful in enforcing data and application security. Chart out a plan for auditing an organization, mentioning in detail the various aspects that will be covered in this audit. In context to this audit discuss:</p> <ol style="list-style-type: none"> 1. Data security audit process 2. Application security audit process 	20	CO4