Name: Enrolment No:	

UPES

End Semester Examination, May 2025

Course: IT Security Management **Semester: IV**
Program: MBA_DB **Time: 03 hrs.**
Course Code: DSIT8011 **Max. Marks: 100**

Instructions:

SECTION A
10Qx2M=20Marks

S. No.		Marks	CO
Q 1	Statement of question		
a.	Which of the following best defines IT Security? a) Protecting hardware from theft b) Safeguarding information and systems from unauthorized access c) Installing antivirus software d) Keeping systems up to date	**2**	**CO1**
b.	Which of these is NOT a primary challenge in computer security? a) Scalability b) Complexity c) Evolving threats d) Insider attacks	**2**	**CO1**
c.	Which of the following is a passive threat? a) Denial of Service b) Eavesdropping c) Trojan Horse d) Spoofing	**2**	**CO1**
d.	A security strategy should always begin with: a) Installing firewalls b) Purchasing antivirus software c) Risk assessment and policy formulation d) Hiring ethical hackers	**2**	**CO1**
e.	Which of the following is an example of an active attack? a) Traffic analysis b) Masquerade c) Eavesdropping d) Wiretapping	**2**	**CO1**
f.	What is the main goal of computer security? a) Block all internet traffic b) Prevent legal liability c) Ensure confidentiality, integrity, and availability d) Monitor employee activity	**2**	**CO1**

g.	In the context of IT security, a 'threat' is: a) An antivirus b) A vulnerability c) A potential danger to information assets d) A firewall	**2**	**CO1**
h.	A message authentication code (MAC) ensures: a) Data privacy b) User anonymity c) Message integrity and authenticity d) Password protection	**2**	**CO1**
i.	Which of the following uses a single key for encryption and decryption? a) Asymmetric encryption b) Public-key encryption c) Symmetric encryption d) Digital signatures	**2**	**CO1**
j.	Which of these is a common asymmetric encryption algorithm? a) DES b) AES c) RSA d) Blowfish	**2**	**CO1**
SECTION B **4Qx5M= 20 Marks**			
Q 2	Statement of question		
a.	Explain the different types of security attacks with examples.	**5**	**CO2**
b.	Describe the major challenges in implementing computer security.	**5**	**CO2**
c.	Explain the need for a computer security strategy in an organization.	**5**	**CO2**
d.	Compare and contrast the impact of viruses, worms, and trojans in an enterprise.	**5**	**CO2**
SECTION-C **3Qx10M=30 Marks**			
Q 3	Statement of question		
a.	How does symmetric encryption provide confidentiality.	**10**	**CO2**
b.	Explain how digital certificates enhance trust in communication.	**10**	**CO2**
c.	Describe the security issues related to password authentication. OR Develop a secure access control policy for an educational institution.	**10**	**CO3**
SECTION-D **2Qx15M= 30 Marks**			
Q 4	Statement of question		
a.	**Explain** how symmetric encryption would secure data stored in a mobile health app.	**15**	**CO3**

b.	**Propose** a cryptographic security model for a real-time chat application. OR **Describe** how biometric authentication is used in modern smartphones and its limitations.	**15**	**CO3**