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MSEI-021

**MASTER OF SCIENCE (INFORMATION
SECURITY)/**

**P. G. DIPLOMA IN INFORMATION
SECURITY (MSCIS/PGDIS)**

Term-End Examination

December, 2025

**MSEI-021 : INTRODUCTION TO
INFORMATION SECURITY**

Time : 2 Hours

Maximum Marks : 50

Note : (i) *Question No. 1 is compulsory.*

(ii) *Attempt any **three** questions from
the rest.*

1. Differentiate the following in brief : $4 \times 5 = 20$
 - (i) Symmetric Encryption and Asymmetric Encryption
 - (ii) Authentication and Authorization
 - (iii) Virtual Private Network (VPN) and Proxy Server
 - (iv) Malware and Ransomware

2. Explain the concept and origin of encryption in information security. Discuss how encryption ensures confidentiality in data transmission. 10

3. Discuss in detail the various types of malware attacks. Provide examples of how they impact organizations and individuals and also suggest some measures. 10

[3]

4. Explain the concept of PKI i.e. public key infrastructure. Explain how does PKI ensure secure communication over the Internet. 10

5. An organization detects an unauthorised access attempt on its internal database. What step should be taken by the IT team as part of incident response to mitigate this threat ? 10

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