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MASTER OF TECHNOLOGY (INFORMATION TECHNOLOGY) (CBCS - 2015 COURSE)
M. Tech. (Information Technology) Sem-II :SUMMER- 2022
SUBJECT : INFORMATION SECURITY

Day : Wednesday

Time : 10:00 AM-01:00 PM

Date : 3/8/2022

S-14226-2022

Max. Marks : 60

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N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate **FULL** marks.
 - 3) Answer to both the sections should be written in **SEPARATE** answer book.
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SECTION – I

Q.1 Compare symmetric and asymmetric encryption with suitable diagram. How (10)
asymmetric encryption is used in digital certificates?

OR

What is affine cipher? Use affine cipher to decrypt the message 'ZEBBW' with key pair (7, 2) in modulus 26.

Q.2 Differentiate between authentication and authorization with suitable example. What (10)
are different authentication types?

OR

What are software security issues? How physical and infrastructure security is implemented?

Q.3 What should be included in information policy? What are types of security policies? (10)

OR

How data security is implemented with backups, archival storage and disposal of data?

SECTION – II

Q.4 Define and elaborate following terms with suitable example. (10)

i) Intruder and Hacker ii) Insider threat iii) Cyber crime

OR

What are steps to create threat awareness in society? What are various sources of vulnerability?

Q.5 Describe elliptic curve. What is elliptic curve cryptosystem? Elaborate it with (10)
suitable example.

OR

How to carry out elliptic curve primality test? Explain elliptic curve factorization.

Q.6 Explain the role and usage of following : (10)

i) Security testing tool ii) Audit tool – NESSUS.

OR

What are information security standards and compliance? Explain ISO:17799 standard in detail.

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