|                             | Roll No                         |
|-----------------------------|---------------------------------|
| Total No. of Questions : 8] | [Total No. of Printed Pages : 2 |

## **IT-8001-CBGS**

## **B.E. VIII Semester**

Examination, December 2020

## Choice Based Grading System (CBGS) Information Security

Time: Three Hours

Maximum Marks: 70

*Note:* i) Attempt any five questions.

- ii) All questions carry equal marks.
- 1. Define Euler's totient function and their applications.
- 2. a) Briefly explain the idea behind elliptic curve cryptography.
  - b) What is Bash function? Give the basic use of Hash function:
- 3. a) Explain web security and penetration testing.
  - b) What is packet filters and intrusion detection system?
- 4. a) What is penetration testing?
  - b) What is firewall and its types?
- 5. a) Explain detail Phishing attacks.
  - b) Explain Cross Site Scripting with example.

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- Briefly discuss about Email security.
  - Write detail about types of Viruses.
- 7. Encrypt the message "meet at the airport" using the Hill cipher with the key  $\begin{pmatrix} 9 & 4 \\ 5 & 7 \end{pmatrix}$ . Show your calculation and the result.
  - 8. Perform the encryption and decryption using RSA algorithm

i) 
$$p = 3$$
;  $q = 11$ ;  $e = 7$ ;  $m = 5$ 

ii) 
$$p = 11$$
;  $q = 13$ ;  $e = 17$ ;  $m = 8$ 

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