

M. SC. (I.T.) SEM. – III (C.B.C.S. COURSE) (2015 COURSE) :
WINTER - 2017

SUBJECT: CYBER SECURITY

Day: **Wednesday**

Date: **20/12/2017**

Time: **10.00 AM TO 01.00 PM**

Max. Marks: 60

W-2017-0923

N.B.:

- 1) Attempt **ANY FIVE** full questions.
 - 2) Be brief. Make assumptions where necessary stating the assumptions made.
 - 3) Figures to the right indicate **FULL** marks.
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- Q.1** a) Highlight the risks to an organization if pirated software is used. **(06)**
b) Define the terms Risk, Vulnerability, Penetration and Attack. **(06)**
- Q.2** a) What is SSL? Explain how this provides security over the Internet. **(08)**
b) What are the tasks performed by firewalls? **(04)**
- Q.3** a) What is a cryptographic hash function? Explain how this is used for digital signatures and for ensuring message integrity. **(08)**
b) List the services provided by AH and ESP in IPsec. **(04)**
- Q.4** a) Enumerate the different kinds of attacks possible on passwords. Briefly explain how each of these attacks can be protected against. **(06)**
b) Make a comparison of the different techniques used by IDS for detecting an intrusion, highlighting the advantages and disadvantages of each. **(06)**
- Q.5** a) Using suitable diagrams, explain the architecture of a DMZ and its uses. **(08)**
b) Explain the importance of an information security policy for an organization. **(04)**
- Q.6** Write short notes on (**ANY TWO**) of the following: **(12)**
a) RSA Knapsack
b) Digital Steganography
c) Phishing Attacks
d) Buffer Overflow Attack

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