

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

SUMMER - 2018

SUBJECT: CYBER SECURITY

Day: **Thursday**

Time: **02.30 pm to 05.30 pm**

Date: **24/05/2018**

S-2018-1034

Max. Marks: 60

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) As the information security officer of an organization, list out any four (04) information resources that you will protect.
- b) For the resources listed out by you at Q.1 (a) above, explain the steps that you will take to protect them. (08)
- Q.2** a) What is a VPN? Why do organizations prefer VPNs over leased lines? (04)
- b) Explain any two methods of implementing VPN over the Internet. (08)
- Q.3** a) Enumerate the different kinds of attacks possible on passwords. Briefly explain how each of these attacks can be protected against. (08)
- b) Make a comparison of the different techniques used by IDS for detecting an intrusion highlighting the advantages and disadvantages of each. (04)
- Q.4** An organization has an internal network connected to the Internet. List all the steps that you will take to protect the resources from an attack originating on the Internet. Explain any two of the steps in detail. (12)
- Q.5** a) What is a digital certificate? Explain how a website uses a digital certificate to authenticate itself to a user. (08)
- b) Briefly explain how message integrity is ensured for a transaction over the Internet. (04)
- Q.6** Write short notes on (**ANY TWO**) of the following: (12)
- a) Penetration Testing
 - b) Buffer Overflow Attack
 - c) Phishing Attacks
 - d) Attacks against passwords

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