

B.SC. (I. T.) SEM. - VI (CBCS - 2015 COURSE) : SUMMER - 2018
SUBJECT: CYBER SECURITY

Day: **Saturday**
Date: **19/05/2018**

S-2018-0962

Time: **10.00 a.m. to 01.00 p.m.**
Max Marks: 60

N.B.:

- 1) Attempt any **SIX** questions.
 - 2) Figures to the right indicate **FULL** marks.
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- Q.1** Insider threats are generally considered to be a greater problem to organizations than external threats. Explain why this is so, and steps that can be taken to mitigate the threat. **(10)**
- Q.2** Describe different program threats. Highlight the areas that these threats exploit. Briefly give out the steps that can be taken to protect against them. **(10)**
- Q.3** What is a VPN? Explain the methods of providing VPNs. Discuss their advantages and disadvantages if any. **(10)**
- Q.4** Software can be downloaded on-line. Explain a method by which it can be ensured that only genuine software is being downloaded. **(10)**
- Q.5** What is a X.509 digital certificate? What is a “hierarchy of trust” in the context of digital certificates? Explain if an organization can issue its own certificate (without trusted third-party verification). **(10)**
- Q.6** a) What is a cryptographic hash algorithm? Explain its use in digital signatures. **(05)**
b) Explain the differences between symmetric and asymmetric key encryption, and bring out the merits and demerits of each. **(05)**
- Q.7** Why is an information security policy important for an organization? List any five major issues that you will include in a security policy. **(10)**
- Q.8** Write short notes on **ANY TWO** of the following: **(10)**
a) ARP spoofing.
b) RSA algorithm.
c) Digital steganography.