

**BACHELOR OF COMPUTER APPLICATIONS (C.B.C.S.) (2014 COURSE)**  
**B.C.A. Sem-VI : WINTER : 2021**  
**SUBJECT: INFORMATION SECURITY**

**Day :** Monday  
**Date :** 10-01-2022

**W-11057-2021**

**Time :** 02:00 PM-05:00 PM  
**Max. Marks:** 100

**N.B.:**

- 1) Attempt **ANY FOUR** questions from Section – I and **ANY TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answer to both the sections should be written in **SAME** answer books.

**SECTION – I**

- Q.1** What is information security? Explain Components of an Information system. (15)
- Q.2** What is the difference between law and ethics? How legal & professional issues will be resolved in information system. (15)
- Q.3** What is risk management? Why is the identification of risks, by listing assets & their vulnerabilities, so important to the risk management process? (15)
- Q.4** Explain in brief cryptography. What is the fundamental difference between symmetric and asymmetric encryption? (15)
- Q.5** What Web resources can aid an organization in developing best practices as part of security framework? (15)
- Q.6** Explain in brief Digital Signature and Digital Certificates and its advantages and disadvantages. (15)
- Q.7** Write a short note on : - (Any Three) (15)
- a) Kerberos for security authentication
  - b) Malware
  - c) Firewall technology
  - d) Traffic modeling

**SECTION - II**

- Q.8** How does virtual private network work? Write application of VPN with its uses for small scale organization (50 people) (20)
- Q.9** Explain operation of anomaly based intrusion detection system in detail. (20)
- Q.10** Solve case study:- A private sector company launches a complaint that some of the current employees have wrongly used vital data of company. As IT manager suggest steps to investigate it. Also suggest controls to avoid it in future. (20)

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