

R15

Code No: 824BC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**MCA V Semester Examinations, December - 2019****PRINCIPLES OF INFORMATION SECURITY****Time: 3hrs****Max.Marks:75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**5 × 5 Marks = 25**

- 1.a) List and explain the key characteristics of an information security. [5]
- b) Differentiate between laws and Ethics? [5]
- c) List the five generations of firewall technology. Which generation is still in common use? [5]
- d) What is the fundamental difference between symmetric and asymmetric encryption. [5]
- e) Describe the special requirements needed to ensure the privacy of personnel data. [5]

PART - B**5 × 10 Marks = 50**

2. With a neat diagram explain the approaches used for the implementation of information security? [10]

OR

3. What are the unique steps performed in security systems development life cycle model? [10]
4. Describe the functions and relationships among laws, regulations, and professional organizations in information security? [10]

OR

5. Identify major national laws that affect the practice of information security. [10]
6. Explain the fundamental aspects of documenting risk via the process of risk assessment? [10]

OR

7. Describe the technology that enables the use of virtual private networks. [10]
8. Discuss the nature and execution of the dominant methods of attack used against cryptosystems. [10]

OR

9. Describe key physical security considerations, including fire control and surveillance systems. [10]
10. Illustrate how an organization's employment policies and practices can support the information security effort. [10]

OR

11. Describe how planning, risk assessment, vulnerability assessment, and remediation tie into information security maintenance. [10]