Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2017**

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| **Code :** | **14CS2021** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INFORMATION SECURITY** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Elaborate the vulnerabilities/threats at various levels of computing system. | CO2 | 20 |
| (OR) | | | | |
| 2. | a. | Illustrate the various types of control mechanisms available to defense against computer attacks. | CO1 | 14 |
| b. | Brief on security goals. | CO1 | 6 |
|  |  |  |  |  |
| 3. | a. | Compare and contrast symmetric and asymmetric encryptions. | CO2 | 5 |
|  | b. | Illustrate the working of caesar cipher with examples. | CO2 | 10 |
|  | c. | Encrypt the message “JESUS LOVES YOU” with key “GOD” using vernam cipher. | CO1 | 5 |
| (OR) | | | | |
| 4. | a. | Demonstrate with example the working model of DES encryption algorithm. | CO2 | 15 |
|  | b. | List the characteristics of good cipher. | CO2 | 5 |
|  |  |  |  |  |
| 5. | a. | Explain the problem caused by buffer overflow program flaw. | CO1 | 10 |
|  | b. | Analyze the spreading strategy of computer viruses. | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | Inspect how access control list and access control matrix method solves the drawback in directory method for protecting objects in computing. | CO2 | 15 |
|  | b. | List the password selection criteria. | CO1 | 5 |
|  |  |  |  |  |
| 7. | a. | Explain the implementation of military security policy. | CO1 | 8 |
|  | b. | Elaborate the list of requirements for database security. | CO2 | 12 |
| (OR) | | | | |
| 8. |  | What makes a network vulnerable? Explain the possible threats in computer networks. | CO2 | 20 |
|  | |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. |  | Elaborate the implementation of various types of firewall. | CO2 | 20 |

ALL THE BEST