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



**End Semester Examination – Nov / Dec – 2019**

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

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Explain the different methods of defense to prevent or mitigate attacks. | CO1 | 10 |
| b. | Summarize the relationship between confidentiality, integrity and availability. | CO1 | 10 |
| **(OR)** | | | | |
| 2. |  | Describe the different types of vulnerabilities. | CO1 | 20 |
|  |  |  |  |  |
| 3. | a. | Explain the steps in AES algorithm with suitable diagram. | CO2 | 15 |
| b. | Differentiate between secret key and public key encryption. | CO1 | 5 |
| **(OR)** | | | | |
| 4. |  | Discuss Substitution ciphers and Transposition Ciphers for converting plaintext to cipher with example. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Elaborate on the various targeted malicious code written to affect users and machines criminally. | CO1 | 20 |
| **(OR)** | | | | |
| 6. |  | Discuss how a programmer communicates data covertly to leak information. | CO2 | 20 |
|  |  |  |  |  |
| 7. |  | Explain in detail the memory and address protection mechanism. | CO3 | 20 |
| **(OR)** | | | | |
| 8. | a. | Discuss the different kinds of attacks on passwords. | CO2 | 12 |
| b. | Elaborate on the drawbacks of Biometric authentication. | CO3 | 8 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Explain the basic security requirements of database systems in detail. | CO3 | 10 |
| b. | Describe encryption methods and tools to counter network security threats. | CO3 | 10 |