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



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

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| **Code :** | **18CS3099** | **Duration :** | **3hrs** |
| **Sub. Name :** | **WIRELESS NETWORK SECURITY** | **Max. Marks :** | **100** |

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| **Q. No.** | **Sub Div.** | **Questions** | **Course Outcome** | **Marks** |
| **ANSWER ANY FIVE QUESTIONS (5 x 16 = 80 Marks)** | | | | |
| 1. | a. | Distinguish the architecture and security features of 1G, 2G, 3G and 4G wireless networks. | CO1 | 10 |
| b. | Summarize the types of attacks and their classification with examples. | CO1 | 6 |
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| 2. | a. | Illustrate and explain the functional taxonomy of information warfare. | CO2 | 6 |
| b. | Explain the basics of operation in infrastructure mode with protocol details and analysis of radio bits. | CO2 | 10 |
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| 3. | a. | Elaborate the mechanics of Wired Equivalent Privacy (WEP) with analysis of its weakness. | CO3 | 10 |
| b. | List the standards used in wireless networks with illustration of the standards used in Robust Security Network (RSN) based on TLS authentication. | CO2 | 6 |
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| 4. |  | Elaborate Extensible Authentication Protocol (EAP) principles with message formats and analyze EAP over LAN message flow. | CO2 | 16 |
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| 5. |  | Explain Temporal Key Integrity Protocol (TKIP) with analysis of its Initialization Vector (IV) value, per-packet key mixing, message integrity and implementation. | CO4 | 16 |
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| 6. | a. | Examine the complete working of Kerberos version 5 and analyze the use of Kerberos in Robust Security Network (RSN). | CO2 | 10 |
| b. | Explain public wireless hotspots and their security issues. | CO6 | 6 |
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| 7. |  | Summarize the working of Remote Access Dial-In User Service (RADIUS) and illustrate EAP over RADIUS. | CO2 | 16 |
| **COMPULSORY QUESTION (1 x 20 = 20 Marks)** | | | | |
| 8. | a. | Explain the architecture of Bluetooth technologies and the threats related to it. | CO5 | 10 |
| b. | Summarize the voice over IP (VOIP) network security vulnerabilities with real-time analysis of a case study. | CO5 | 10 |