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



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

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|  |  |  |  |
| **Code :** | **19CA3003** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ARTIFICIAL INTELLIGENCE FOR BIG DATA** | **Max. Marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | | Compare and contrast a human brain with an electronic brain. | CO1 | 10 |
| b. | | Illustrate the differences between supervised machine learning and unsupervised machine learning. | CO1 | 10 |
| **(OR)** | | | | | |
| 2. | a. | | Illustrate the working of k-means clustering algorithm with an appropriate example. | CO3 | 10 |
| b. | | Explain the process of dimensionality reduction using principal component analysis method. | CO3 | 10 |
|  |  | |  |  |  |
| 3. |  | | Explain the different types of neural networks and their applications in big data analysis. | CO3 | 20 |
| **(OR)** | | | | | |
| 4. | a. | | Explain how back propagation networks are used in deep learning. | CO3 | 10 |
| b. | | Explain distributed computing. | CO2 | 10 |
|  | | | | | |
| 5. |  | | Explain the various types of text preprocessing. | CO5 | 20 |
| **(OR)** | | | | | |
| 6. |  | | Explain fuzzy c-means clustering. | CO3 | 20 |
|  |  | |  |  |  |
| 7. |  | | Explain particle swarm intelligence. | CO4 | 20 |
| **(OR)** | | | | | |
| 8. | |  | Explain the ant colony optimization model. | CO4 | 20 |
|  | | | **Compulsory**: |  |  |
| 9. | a. | | Explain reinforcement learning. | CO3 | 10 |
| b. | | Explain the types of cyber security attacks. | CO6 | 10 |