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

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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **17CS2067** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTRODUCTION TO DATA ANALYTICS** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Explain the three varieties of data that is used in data engineering with suitable examples. | CO1 | 6 |
| b. | Describe the key industry sectors that can benefit from data science and analytics. | CO1 | 14 |
| (OR) | | | | |
| 2. | a. | Describe the various types of analytics in the order of increasing complexity. | CO2 | 6 |
| b. | Illustrate the steps to follow in the process of data preparation. | CO2 | 14 |
|  |  |  |  |  |
| 3. | a. | List down the needs for dimensionality reduction in huge datasets. | CO3 | 4 |
| b. | Explain the methods used for reducing the dimensionality of datasets with Linear Algebra. | CO3 | 16 |
| (OR) | | | | |
| 4. |  | Explain how the K – Nearest Neighbour algorithm is used to predict classifications for new unlabeled observation with suitable example. | CO5 | 20 |
|  |  |  |  |  |
| 5. |  | Use D3.js to create an interactive web-based bar chart with the following values:   |  |  | | --- | --- | | A | 25 | | B | 35 | | C | 45 | | D | 15 | | CO4 | 20 |
| (OR) | | | | |
| 6. | a. | Discuss the three types of data visualization. | CO4 | 6 |
| b. | Explain in details how to pick up the best that meets the needs of the audience. | CO4 | 14 |
|  |  |  |  |  |
| 7. | a. | Explain the NumPy and SciPy libraries of Python with suitable examples. | CO3 | 8 |
| b. | Write a python code to draw a trendline for the given dataset. | CO5 | 12 |
| (OR) | | | | |
| 8. |  | Compare and contrast the various software applications available for data science. | CO6 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Discuss the impact of data science in journalism. Compare and contrast the data savvy journalists with the traditional journalists. | CO6 | 20 |