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

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

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| **Code :** | **17CA2005** | **Duration :** | **3hrs** |
| **Sub. Name :** | **PRINCIPLES OF DATA COMMUNICATION** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Write short notes on: |  |  |
| a. | Sampling. | CO1 | 7 |
| b. | Quantisation. | CO1 | 7 |
| c. | Encoding. | CO1 | 6 |
| (OR) | | | | |
| 2. |  | Discuss the three different types of modulation with necessary diagrams. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | Discuss briefly the Shannon’s theorem on channel capacity. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Elaborate the possible types of communication. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Discuss in detail the most significant transmission impairments in communication. | CO3 | 20 |
| (OR) | | | | |
| 6. | a. | Briefly discuss on electromagnetic spectrum with examples. | CO3 | 10 |
| b. | Discuss the transmission characteristics of guided media. | CO4 | 10 |
|  |  |  |  |  |
| 7. |  | Write short notes on: |  |  |
| a. | Non Return to Zero – Level. | CO5 | 7 |
| b. | Non Return to Zero – Inverted. | CO5 | 7 |
| c. | Multilevel Binary Bipolar. | CO5 | 6 |
| (OR) | | | | |
| 8. |  | Discuss the encoding techniques in Digital Data and Analog Signals. | CO5 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Elaborate the error control mechanisms used in communication. | CO6 | 10 |
| b. | Discuss in detail the different transfer modes in High Level Data Link Control. | CO6 | 10 |