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

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

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| **Code :** | **16MT2004** | **Duration :** | **3hrs** |
| **Sub. Name :** | **PRINCIPLES OF AUDIO ENGINEERING** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Pictorially represent the working of human ear and list down and explain each part of the same. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | What are the characteristics of sound critical for studying the behavior of sound in any environment? List them down and explain in brief. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | List down different types of microphones according to ease of use and explain their features in detail. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Differentiate a Condenser microphone and Dynamic microphone with pictorial representation and explanation of their basic features. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Which one shall be decided to be bough first: Loudspeaker or Amplifier? What criterions needed to be studied so as to match the amplifier and loudspeaker? | CO2 | 20 |
| (OR) | | | | |
| 6. | a. | Differentiate Active crossover and Passive crossover. What is a crossover basically used for and how does it enhance the quality of audio output. | CO2 | 10 |
| b. | List down and explain any five specification parameters of a loudspeaker that are critical to make selection for an application. | CO3 | 10 |
|  |  |  |  |  |
| 7. |  | Compare an Analog mixer with Digital mixer. List down all the features available on a single channel of an audio mixer and explain them in detail. | CO3 | 20 |
| (OR) | | | | |
| 8. |  | What are different types of Signal processors? List any five and explain their features. | CO2 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Mention the steps involved in converting an Analog audio into Digital Audio and explain the same. | CO2 | 10 |
| b. | Calculate the disk space required to store a digital audio recorded with sampling rate of 44.1kHz and bit depth of 16bit for a time period of 2 minutes. | CO2,CO3 | 10 |