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

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

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| **Code :** | **14MT2003** | **Duration :** | **3hrs** |
| **Sub. Name :** | **AUDIO ENGINEERING** | **Max. marks :** | **100** |

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

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| **Q. No.** |  | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Write short notes on the following characteristics of sound:   1. Harmonics 2. Pitch 3. Octaves 4. Timbre 5. Frequency 6. Wavelength 7. Amplitude 8. Phase 9. Overtone 10. Presence Range of human ear | CO1 | 20 |
| (OR) | | | | |
| 2. |  | With a neat diagram depict the human ear anatomy and explain how is sound perceived by human ear. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | Mention the construction principle, polar pattern used and application of the following microphones:   1. Lavallier microphone 2. Parabolic microphone 3. Boom mic 4. Hydrophone 5. Headworn mic | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Differentiate Dynamic microphone and Condenser microphone. List down where they are used. Differentiate microphone according to their polar patterns also with a suitable example. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Clearly list down all the features that are mandatory in a Professional amplifier. Explain your views on how to decide a right amplifier for a loudspeaker. | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Mention in detail all the specification required to be checked before deciding on purchasing a loudspeaker for any application. | CO3 | 20 |
|  |  |  |  |  |
| 7. |  | List down all the features on a single channel of an analog mixer and explain its features. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | List down any 5 Equalizers and explain their features in detail. | CO3 | 20 |
|  | | **Compulsory**: |  |  |
| 9. |  | Digital audio is recorded at sampling rate 44.1kHz and 16bit resolution. Calculate the disk space required to store a stereo track of digital audio for a period of 2minutes. | CO1 | 20 |