

QP CODE: 22102324

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B.A DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, JULY 2022

First Semester

B.A Audiography & Digital Editing

Core Course - AE1CRT01 - SCIENCE OF SOUND

2017 Admission Onwards

26111CD3

Time: 3 Hours

Max. Marks: 80

Part A

Answer any ten questions. Each question carries 2 marks.

- 1. What is phase of sound?
- 2. What is over tones?
- 3. What is the speed of sound in air?
- 4. What is the relation between Temperature and speed of the sound?
- 5. What is sound intensity?
- 6. What are the names of room mode?
- 7. What is the minimum required distance for an echo to be produced and why?
- 8. What threshold of pain?
- 9. Which characteristic of the sound wave is related to the pitch?
- 10. What is ILD?
- 11. Explain the application of echo.
- 12. What is sabine's formula?

(10×2=20)

Part B

Answer any **six** questions. Each question carries **5** marks.



- 13. Explain ultrasonic sound and infrasonic sound.
- 14. What are characteristics of sound?
- 15. Explain Harmonics and Octave
- 16. What is simple and complex sound?
- 17. Explain reflection and refraction of sound
- 18. What is masking?
- 19. What is Comb filter effect?
- 20. How we locate low frequency sound?
- 21. What is RT60? How we can calculate RT?

Part C

Answer any **two** questions. Each question carries **15** marks.

- 22. Explain Decibel of SPL, Voltage and Power with equation.
- 23. Explain hearing mechanism, with diagram.
- 24. How sound travels in different medium? What are the physical properties that govern the velocity of sound?
- 25. Design a music studio with 20 ft width, 21 ft length and 11ft height with all calculations and illustrations.

 $(2 \times 15 = 30)$

(6×5=30)

