C 3929

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Name.....

Reg. **No**.....

FOURTH SEMESTER B.Sc. (L.R.P.) DEGREE EXAMINATION, APRIL 2016

(CUCBCSS—UG)

Common Course

A 14—BASICS OF AUDIO AND VIDEO MEDIA

Time : Three Hours

Maximum : 80 Marks

Part I

Answer **all** *questions.*
Each question carries 1 mark.

1. Name the nerve that carry signals from ear to brain
2. Reverberation is caused by of sound waves
3. Sound waves consists of a sequence of compressions and
4. For quality microphones non-linear distortion should be less than
5. A transducer that converts electrical signals to sound waves is called
6. The base coating material in a magnetic tape is
7. A camera converts brightness and colour into signals.
8. The expansion of VCD is
9. The SIN ratio of a cone type speaker is less than or equal to dB:
10. The audible range of frequencies is between 20 Hz and Hz.

(10 x 1 = 10 marks)

Part II

Answer any **five** *questions.*
Each question carries 2 marks.

11. Describe the mechanism of hearing of human ear.
12. Explain Sabine's formula for reverberation time.
13. List the characteristics that determine quality of a microphone.
14. Define directivity of a microphone.
15. Distinguish between low pass and high pass filters.
16. What is DA Conversion ?
17. Explain the principle of analog video recording.

(5 x 2 = 10 marks)

Turn over

Part **III**

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

18. Describe growth and decay of sound in an enclosure.
19. Discuss the principle of capacitor microphone and explaining its working.
20. Discuss the electrodynamic loud speaker.
21. Distinguish parametric and graphic equalisers.
22. Discuss ac and dc biasing of magnetic recording in tapes.
23. Distinguish analog and digital mixers.
24. Distinguish MPEG 1, 2 and 3.
25. Discuss need and scope of video compression.

(6 x 5 = 30 mark

Part IV

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

26. Explain the acoustics of studio reverberation and acoustics of auditorium.
27. Explain ribbon microphone.
28. Discuss magnetic recording on a tape and explain recorded wavelength, gap width and tape speed.
29. Explain VCD, DVD, and blue ray disc recording and playing.

(2 x 15 = 30 marks)