18U416 (Pages: 2) Name: ……

Reg. No……..

FOURTH SEMESTER DEGREE EXAMINATION, APRIL 2020

(CUCBCSS-UG)

(Regular/Supplementary/Improvement)

CC15U GN4 A14 (1) – BASICS OF AUDIO & VIDEO MEDIA

(General Course - B.Sc. CS/B.C.A.)

(2015 Admission onwards)

Time: Three Hours Maximum: 80 Marks

PART I

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

1. _____ is the working principle of moving coil transducers.
2. For quality microphones non-linear distortion should be less than _____ %.
3. The base coating material in a magnetic tape is _____
4. The expansion of DVD is _____
5. The S/N ratio of a cone type speaker is less than or equal to _____ dB.
6. The audible range of frequencies is between 20 Hz and _____ Hz.
7. The expansion of MPEG is _____
8. The smallest bone in ear _____
9. A camera converts brightness and colour into _____ signals.
10. _____ recording is based on magnetization of magnetic materials in an external magnetic field.

(10 x 1 = 10 Marks)

PART II

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

11. What is noise?
12. Define directivity of a microphone.
13. Explain any two noise reduction techniques.
14. Define directivity of microphones.
15. Explain about MP3.
16. Explain the principal of analog video recording.
17. What are the factors on which reverberation time depends?

(5 x 2 = 10 Marks)

PART III

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

18. Discuss the principle, construction and working of a crystal microphone.
19. Discuss digital coding using A/D parallel and flash methods.
20. Discuss the electrodynamic loud speaker.
21. Distinguish parametric and graphic equalisers.
22. What is the need for biasing? Explain.
23. Distinguish MPEG 1, 2 and 3.
24. What is the helical recording? Explain its need.
25. Discuss H26 compression standards.

(6 x 5 = 30 Marks)

PART IV

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

26. Explain ribbon microphone.
27. Discuss recording of video signals on magnetic tape and its reproduction with block diagram.
28. Discuss magnetic recording on a tape and explain recorded wavelength, gap width and tape speed.
29. Discuss digital recording systems.

(2 x 15 = 30 Marks)

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