Bachelor Level / fifth-semester / Science Full marks: 60 **Computer Science and Information Technology(CSC319)** Pass marks: 24 (Multimedia Computing) Time: 3 hours Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Group A

Long answer questions[2x10=20]

Attempt any two questions.

1. Explain the global structure of multimedia with block diagrams and explain each block in detail.

2. List and explain the various color models used in images and videos.

3. Why do we need Huffman coding? Explain it with suitable examples.

Group B

Short answer questions

Attempt any eight questions[8 x 5 = 40]

4. Explain the speech generation method.

5. How can you generate animation using a computer?

6. Differentiate between JPEG and MPEG.

7. Discuss in brief about the user interface design process in multimedia.

8. Explain the abstraction levels of the programming of object-oriented approaches.

9. Discuss the color dithering technique with examples.

10. Calculate the file size in bytes for a 30 second recording at 44.1 khz, 8 bits resolution stereo

sound.

11. Differentiate between lossless and lossy compression.

12. Explain the applications of multimedia in telemedicine.