

# CBCS SCHEME



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15EC741

## Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019 Multimedia Communication

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Explain:
- Date network
  - Broadband multiservice network in detail with suitable figures. (10 Marks)
- b. Explain centralized, decentralized and hybrid mode multi conferencing with neat figures. (06 Marks)

OR

- 2 a. Discuss the Quality Of Service (QOS) parameters for circuit switched network. (08 Marks)
- b. Explain in brief interactive applications over internet. (08 Marks)

### Module-2

- 3 a. Explain Raster-Scan operation associated with TV/computer monitor. (08 Marks)
- b. Derive the time to transmit following digitized images at 64 Kbps and 1.5 Mbps, 640 × 480 × 8; VGA compatible image, 1024 × 768 × 24 SVGA compatible image. (06 Marks)
- c. Define aspect ratio of display screen. (02 Marks)

OR

- 4 a. With a neat circuit components and its associated waveform, explain signal encoder design. (08 Marks)
- b. With the aid of diagram, describe following digitization formats: (08 Marks)
- 4:2:2
  - SIF
  - CIF

### Module-3

- 5 a. With the aid of a diagram, identify the five main stages associated with baseline mode of operation of JPEG and give a brief description of the role of each page. (08 Marks)
- b. Explain the typical structure of an IP network. (08 Marks)

OR

- 6 a. Explain the principle of operation of LZW compression algorithm. (08 Marks)
- b. Explain CPU management and memory management in multimedia operating systems. (08 Marks)

### Module-4

- 7 a. Explain DPCM encoder/decoder with a neat diagram. (08 Marks)
- b. What are the video compression principles, explain with example frame sequences i) I and P frames ii) I-P-B frames iii) PB frames. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

OR

- 8 a. Explain linear predictive coding signal encoder and decoder with neat schematic. (08 Marks)  
b. Explain H.261 macro block encoding format. (08 Marks)

**Module-5**

- 9 a. With a neat block diagram, explain Scalable Rate Control (SRC). (10 Marks)  
b. Explain packet video (Asynchronous transfer of video). (06 Marks)

OR

- 10 a. Explain the transmitter subsystem of integrated packet networks of speech source. (08 Marks)  
b. Explain in brief errors and losses in ATM. (08 Marks)

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