

2023

COMPUTER SCIENCE — GENERAL

Paper : SEC-B-X-1

(Multimedia)

Full Marks : 80

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer **question nos. 1 and 2** and **any four** questions from the rest.

1. Answer **any ten** questions :

2×10

- (a) What is GUI?
- (b) What is CCD?
- (c) Name any two audio file formats used in multimedia systems.
- (d) Name two multimedia components.
- (e) What do you mean by resolution of an image?
- (f) What is noise in Multimedia data?
- (g) What is key frame?
- (h) What is TIFF?
- (i) Define linear and non-linear media.
- (j) What are NTSC and PAL?
- (k) What are primary stages of multimedia?
- (l) What is chroma effect?
- (m) Define Pixel.
- (n) What is Codec?

2. Write short notes on (**any four**) :

5×4

- (a) MIDI
- (b) QoS parameter
- (c) Storage of Grayscale image in computer memory
- (d) Hypermedia
- (e) Usefulness of hypertext
- (f) Key features of video conferencing software.

Please Turn Over

3. (a) Define Multimedia Server.
(b) Describe their roles. 2+8
4. (a) Differentiate Bitmap and Vector image.
(b) What is meant by audio-video synchronization in Multimedia? 5+5
5. (a) What is digital audio? How is it sampled?
(b) Explain any one audio compression technique. (1+4)+5
6. (a) Why is video compression essential in multimedia system?
(b) What is OCR? Explain its advantages. 5+5
7. (a) Differentiate between JPEG and PNG image file system.
(b) Detail the features of good image editing tool.
(c) What are Kerning and Leading? 4+4+2
8. (a) What are the main differences between analog and digital video?
(b) What is Transcoding and why it is important for video streaming?
(c) Name any two video editing open source software. 4+4+2
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