



SA – 691

VI Semester B.A./B.Sc. Examination, April/May 2015
(Semester Scheme) (Fresh + Repeaters)
COMPUTER SCIENCE – VIII
Multimedia Technology
(70 Marks – 2013-14 and Onwards/60 Marks – Prior to 2013-14)

Time : 3 Hours

Max. Marks : 70/60

Instructions : 1) **2013-14** onwards students has to attend **all** Sections, i.e., **A, B, C and D.**
2) **Repeaters** (i.e. Prior to **2013-14**) have to answer Section **A, B and C** only.

SECTION – A

Answer **any ten** questions. **Each one** carries **one** mark :

(10×1=10)

1. Define multimedia.
2. What is decoder ?
3. Define Quantizer.
4. Differentiate between low-pass and high-pass filter.
5. What is compression ?
6. Define Nyquist's rate.
7. What is synthesizer ?
8. What is meant by pitch ?
9. Name the unit used for measuring loudness.
10. What are the three components of color ?
11. Why compression is required for multimedia information ?
12. What is MIDI ?

P.T.O.



SECTION – B

Answer **any five** questions. **Each one** carries **three** marks :

(5×3=15)

13. Explain the principles of encoder design.
14. Discuss PCM speech.
15. Explain three main properties of a color source.
16. Explain the format of digital video.
17. Explain the different standards of MPEG.
18. What are the characteristics of digital Video.
19. Write a note on HDTV standards.

SECTION – C

Answer **any five** questions. **Each one** carries **seven** marks :

(5×7=35)

20. Explain encoder design principles.
21. a) Explain digital to analog conversion.
b) Explain the working of digital camera. **(3+4)**
22. Explain TV Broad casting.
23. Discuss in brief JPEG Encoding.
24. Explain Arithmetic coding principles for text compression.
25. Explain motion estimation and compensation.
26. Explain Differential Pulse Code Modulation.
27. Discuss the different frame types used in video compression techniques.



SECTION – D

(Only for **2013-14** onwards students).

Answer **any one** question. **Each** carry **ten** marks :

(10×1=10)

28. a) Explain multimedia applications.

b) Explain different types of text.

(6+4)

29. a) Define Pixel, Pixel depth, Aspect ratio and Frame buffer relating to graphics output device.

b) Explain SIF, CIF and QCIF digitization formats of video information.

(4+6)
