B.E. (Sem VII) (CBSGS) (Information Technology)
Multimedia Systems

6th June 2016
11.00 am to 2.00 pm

Q.P. Code : 31607

(3 Hours) **[Total Marks : 80**

N.B. : (1) Question No. **1** is **compulsory**.
(2) Solve any **three** questions from the remaining questions.
(3) Assume suitable **data** wherever **required**.
(4) **Figures** to the **right** indicate **full** marks.

1. (a) Explain Colour Models for Images & Videos **5**
   (b) Explain Motion Compensation **5**
   (c) Explain Card and Page based Authoring tools with Examples? **5**
   (d) What do you mean by entropy of information? Find the entropy of string "cccccc" where the probability of 'c' is = 1/16?

2. (a) Explain different architectures for content organization in multimedia databases. **10**
   (b) An MPEG-1 video has a frame sequence : IBBPBBPBBPBBI. Determine the size of GOP. Derive the transmission sequence of the frames? **10**

3. (a) Explain and Draw neat and labeled diagram for encoder and decoder of H.261 **10**
   (b) Explain different broadcasting schemes of video on demand. **10**

4. (a) Explain Media Abstraction in Multimedia Databases **10**
   (b) Consider an image of dimensions 640 x 480 and color depth of 16 bits. If this image is to be transmitted along a 56 kbps line from a Web server, calculate how long it would take before the entire image is visible on the screen? **10**

5. (a) Describe the Standardization process on Multimedia Communication. **10**
   (b) Explain JPEG Compression in detail. **10**

6. Write short notes on (**Any Two**) **20**
   (a) Multimedia over IP
   (b) Digital broadcasting applications
   (c) JPEG 2000 standard
