

VII SEMESTER B.TECH. (PRINT AND MEDIA TECHNOLOGY)

END SEMESTER EXAMINATIONS, NOVEMBER 2017

PROGRAM ELECTIVE - VI: GRAPHICS AND WEB DESIGN [MCA 4001]

REVISED CREDIT SYSTEM (28/11/2017)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ✤ Answer ALL the questions.
- ✤ Missing data, if any, may be suitably assumed.
- 1A. Specify the need for compression. Encode the message ABCDEBA using Huffman coding. Represent the final tree representing codes. Calculate total number of bits required to code the message considering 3 bits/symbol without compression and with Huffman coding. The symbol and their frequencies are as given below.

Symbol	А	В	С	D	E
Frequency	24	12	10	8	8

- 1B. What do you mean by transformation? Specify basic three types of transformation used in 3D modelling. Is morphing comes under transformation? Justify.
- **1C.** List out differences between raster images and vector images

[05+03+02]

- 2A. Write html tags for the following in a single html file:
 - Display the web page having the background in blue and heading name of the tourist place in RED color
 - ii) Describe any two places of attraction within 2 3 paragraphs by specifying the content in different color, font and size
 - iii) Display the details about the hotels in and around in the form of a table
 - iv) Insert some images in the web page
 - v) Create a link to the image gallery

2C. Translate a square ABCD with the coordinates A(0,0),B(5,0),C(5,5),D(0,5) by 2 units in x-direction and 3 units in y-direction.

[05+03+02]

- **3A.** Explain DDA line drawing algorithm with an example
- **3B.** With a neat diagram explain the components of a graphic system.
- **3C.** Calculate the storage requirement, if a bitmap image is 400 X 200, with R, G, B components and the bit-depth is 24 bits per pixel (8 bits per component).

[05 + 03 + 02]

- **4A.** Explain JPEG compression with a neat block diagram
- 4B. What are web-servers? Specify three basic functions of web-servers
- **4C.** Differentiate between IP address and Physical address.

[05+03+02]

- **5A.** Explain any five Internet services.
- **5B.** Explain advantages and disadvantages of Musical Instrument Digital Interface (MIDI).
- **5C.** Differentiate between sampling and quantization with a neat diagram.

[05+03+02]