

**Examination - IMCA 9th Semester , 2019**

**Subject - Multimedia Applications**

**Paper - 9.6**

**Full Mark – 70**

**Time – 3 hours**

**(Answer All Questions. Each question carries equal marks )**

1. a. What are the different types of medium used in multimedia processing ?  
Explain each one in brief .
- b. Define the term digital image. What are the different phases of image processing ?  
Explain each one in brief .

**OR**

- c. Define the term Multimedia. What are the different applications of multimedia ?  
Explain each one in brief .
- d. Write short notes on : MIDI

2. a. Define the term Entropy Encoding. State any one entropy encoding algorithm .
- b. State MPEG Image Compression Algorithm .

**OR**

- c. State JPEG Image Compression Algorithm .
- d. Define the term image compression . What are the different types of image compression techniques are used in image processing ? Explain each one in brief .
3. a. What are the different types of memory management techniques used in multimedia system ? Explain each one in brief .
- b. What are the different types of operating system used in recent multimedia application ? Explain each one in brief .

**OR**

- c. Write short notes on : Video on Demand
- d. Define the term Sound. Explain the concept of sound in brief .
4. a. What are the different protocols used in multimedia transmissin ? Explain each one in brief .
- b. What are the different characteristics of data stream used in multimedia system ? Explain each one in brief .

**OR**

- c. Define the following terms :  
Aspect Ratio , Horizontal Scan Rate , Refresh Rate , Resolution , Color Depth  
Nyquist Theorem , Signal to Noise Ratio
- d. Differentiate between Sampling and quantization .
5. a. What are the different stages of multimedia project ? Explain each one in brief .
- b. What are the different types of applications of HTML used in multimedia system ?  
Explain each one in brief .

**OR**

Write short notes on :

- (i) Multimedia Software
- (ii) Multimedia Hardware Peripherals