ROLL NO 6161680031

Total No. of Questions: 10] [Total No. of Printed Pages: 7 (1049)

## B.C.A. (CBCS) RUSA VIth Semester Examination

## 4397

## MULTIMEDIA TECHNOLOGY

Paper: BCA-0603

Time: 3 Hours]

[Maximum Marks: 70

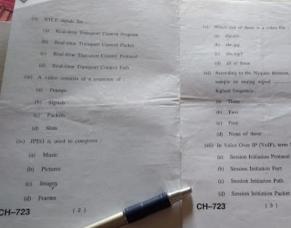
Note: - The question paper contains five Parts. All questions in Part A are compulsory. Part B, C, D and E each has two questions. The candidates are required to attempt one question each from each of these four Parts.

## Part-A

- 1. (i) Before audio or video signals can be sent on internet, they need to be :
  - Channelized
- (b) Managed
- (c) Digitized
- (d) Organized

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Turn Over



(vi) According to the Nyquist theorem, we need to sample an analog signal ..... times the (d) None of these (vii) In Voice Over IP (VoIP), term SIP stands for : (a) Session Initiation Protocol

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(viii) What is the full form of PNG ?

- (a) Printer network graphics
- (b) Porject network graphics
- (c) Protable network graphics
- (d) None of these
- (ix) Which type of file is highly flexible and platform independent format ?
  - (a) Tagged image file format
  - (b) Portable network graphic
  - (c) Bitmap image
  - (d) Photoshop image
- (x) fps stands for ..... (a) File per second
  - (b) Frames per second
  - File per signal
  - (d) None of these

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2. (i) Briefly explain four key properties of a multimedia system.

(ii) Explain the use of the following hardware components in multimedia;

(a) Graphics accelerator

(b) Frame grabber

(iii) For multimedia stream transport, RTP on top of UDP is the commonly preferred method to send media data. Explain Why 7

(iv) Explain the application of multimedia in education.

(v) Differentiate between scalar and vector 4×5=20 cuantization.

> 10 each Part-B

3. Explain data redundancy. What are different forms of redundancies exploited in multimedia data compression?

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 What is means by the sents frequency and temporal masking of two or more audio signals? What is the cause of this masking?

Not.C

Differentiate between MP3 and wave audio files.
 Which format is more prose to security threats?
 Explain the key differences between I-frames.

P-frames and B-frames in MPEO video compression.

Describe the advantages and disadvantage of using B-frames.

Part-D

n 10 each

 Explain GIF format. List the pros and cons of GIF as a Web image format.

 What is the CMYK colour model? Give an application in which this colour model is mostly used. Explain the reason. West E

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Why is data compression incessory for meltimedia activities? What is the distinction between lossless and lossy compression? Explain advantage and disaborations of each.

0. How does the human eye sense colour ? What characteristics of the colour sensory operators of human visual system can be exploited for the compression of colour images and video ?

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