Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14CS3056** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTERNETWORKING MULTIMEDIA** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Give a model for accounting resource utilization in bursty flows in a multimedia application. | CO1 | 10 |
| b. | With relevant diagarams describe the working of Real time Transport Protocol in multimedia streaming applications. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Store and forward delay is the major delay component in any multimedia data transfer. Propose any two solutions to reduce the store and forward delay in overloaded multimedia networks. | CO1 | 10 |
| b. | Elucidate the role of multicast in the Internet. | CO2 | 10 |
| 3. | a. | What are the advantages and drawbacks of Network Text Editor. | CO1 | 3 |
|  | b. | Write short notes on the design issues of transport protocols for multimedia systems. | CO1 | 5 |
|  | c. | Design and explain a network service model which is capable enough to create and maintain communication in multimedia scenario. | CO1 | 12 |
| (OR) | | | | |
| 4. | a. | Consider a RSVP multicast session involving one sender and three receivers RCV1-RCV3. How does resource reservation protocol work for placing reservations? List various messages passed between the sender and receiver. | CO2 | 10 |
|  | b. | Assume that you have to stream a MP3 file using the server side pipeline.How does HTTP, RTSP and RTP works together to establish a time synchronized streams of audio? | CO2 | 10 |
| 5. | a. | Discuss the significance following lossless compression techniques over lossy compression techniques used to compress the multimedia data.   1. Huffman compression 2. Run length compression 3. Lempel-Ziv dictionary based compression | CO1 | 15 |
|  | b. | State the theorem proposed by Nyquist which describes the sampling rate. | CO1 | 5 |
| (OR) | | | | |
| 6. | a. | Compare and contrast OSPF and MOSPF. | CO1 | 5 |
|  | b. | What are the various levels of interest in text, still image and moving images? | CO1 | 5 |
|  | c. | Illustrate various center based tree routing algorithms used for multimedia networks. | CO1 | 10 |
| 7. | a. | With a neat sketch discuss how media streams are conveyed by RTP between interactive participants in video teleconferencing applications. What are the roles of RTP multiplexing in the interactive applications? | CO2 | 10 |
|  | b. | Explain how TCP adoption algorithm manages the increase in overload in multimedia networks. | CO1 | 10 |
| (OR) | | | | |
| 8. | a. | Compare and contrast Session Announcement and Session Initiation protocols. | CO2 | 10 |
|  | b. | An advertising company required to conduct a multisite conferencing among its managers in various locations. But the company is not having the established shared multiplexed network among its branches. Suggest and explain the various methods of achieving Multisite Conferencing in the absence of the shared multiplexed network. | CO2 | 10 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Discuss the role of media on demand technology in achieving a low cost and high quality media sharing. | CO1 | 10 |
|  | b. | Describe the importance of various security mechanisms used in multicast multimedia applications. | CO3 | 10 |

ALL THE BEST