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

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**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 – 2017**

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| --- | --- | --- | --- |
| **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. | Design and explain a network service model which is capable enough to create and maintain communication in multimedia scenario. | CO1 | 10 |
| b. | Discuss the various messages exchanged in RSVP. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Explain the following components of internet service models.  i. Non best effort service ii. Reservations iii. Admissions control iv. Accounting | CO1 | 10 |
| b. | 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 |
|  |  |  |  |  |
| 3. |  | Explain the following Center Based Tree routing mechanisms with suitable diagrams.  i. CBT ii. SM-PIM iii.. BGMP | CO2 | 7  7  6 |
| (OR) | | | | |
| 4. |  | Discuss the following lossless compression techniques used to compress the multimedia data.   1. Huffman compression 2. Run length compression 3. Lempel-Ziv dictionary based compression | CO2 | 7  7  6 |
|  |  |  |  |  |
| 5. |  | Discuss the various compression techniques used in multimedia data transmission. | CO1 | 20 |
| (OR) | | | | |
| 6. | a. | A multimedia company gets the contract of conducting a video conference in which the Prime Minister of our country addresses the students in some of the schools. The company wanted to use the Center Based Tree routing mechanisms to transmit the data from the source node to different destination nodes in different schools. Analyze the CBT, SM-PIM and BGMProuting mechanisms and propose an efficient routing mechanism for the company. | CO1 | 10 |
|  | b. | Explain the following multimedia compression techniques used in multimedia data transmission.   1. Huffman compression 2. Run length compression | CO1 | 10 |
|  |  |  |  |  |
| 7. |  | Explain how TCP adaption algorithms manage the increase in overload in multimedia networks. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | Elaborate the H.261 encoding scheme with suitable block diagram | CO2 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Explain how the authentication can be achieved using digital signatures with suitable diagrams. | CO3 | 10 |
|  | b. | Explain the public key cryptography used in multimedia data transmission. | CO3 | 10 |

ALL THE BEST