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 – April/May– 2017**

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| **Sub. Code:** | **14CS3056** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTERNETWORKING MULTIMEDIA** | **Max. marks :** | **100** |

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

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. | a. | Explain the various internet service models with suitable diagrams. | CO1 | 10 |
| b. | Explain the various design issues of designing the transport protocols for multimedia systems. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Discuss RSVP and its message formats with necessary diagrams. | CO1 | 10 |
| b. | Elucidate the different internet service models used for providing QoS guarantees to the elastic and real time applications. | CO1 | 10 |
|  |  |  |  |  |
| 3. | a. | Explain the Realtime Transport Protocol and its functions. | CO1 | 10 |
|  | b. | Explain the Transmission Control Protocol used for realtime multimedia data transmission. | CO1 | 10 |
| (OR) | | | | |
| 4. | a. | Explain the various Center Based Tree routing mechanisms with necessary diagrams. | CO1 | 12 |
|  | 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 | 8 |
|  |  |  |  |  |
| 5. |  | Explain the following multimedia compression techniques used in multimedia data transmission.   1. Huffman compression 2. Run length compression 3. Lempel-Ziv dictionary based compression | CO1 | 20 |
| (OR) | | | | |
| 6. | a. | Compare and contrast OSPF and MOSPF. | CO1 | 5 |
|  | b. | Explain a video coding and decoding scheme for moving picture component used in realtime multimedia. |  | 15 |
|  |  |  |  |  |
| 7. | a. | Explain how TCP adaption algorithms manage the increase in overload in multimedia networks. | CO1 | 10 |
|  | b. | Discuss the Session Description Protocol with appropriate diagrams. | CO2 | 10 |
| (OR) | | | | |
| 8. | a. | Explain the Session Initiation Protocol relay and redirection mechanisms with necessary diagrams. | CO1 | 15 |
|  | b. | Brief on conference control channel with suitable examples. | CO1 | 5 |
|  | |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. | a. | Explain how the authentication can be achieved using digital signatures with suitable diagrams. | CO3 | 10 |
|  | b. | Describe Media On-Demand and its advantages with suitable diagrams. | CO2 | 10 |