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

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**End Semester Examination – Nov / Dec – 2019**

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| **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 |
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| 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.  (i) Huffman compression (ii) Run length compression.  (iii) Lempel-Ziv dictionary based compression. | CO1 | 20 |
| **(OR)** | | | | |
| 6. | a. | Compare and contrast OSPF with 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. | Write briefly 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 |