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

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**End Semester Examination – Nov/Dec – 2018**

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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. | Discuss the following aspects of modern Internet service models to handle multimedia data transfers.   1. [Non-best effort service](http://www.cl.cam.ac.uk/~jac22/books/mm/book/node19.html) 2. [Reservations](http://www.cl.cam.ac.uk/~jac22/books/mm/book/node20.html) 3. [Admission Control](http://www.cl.cam.ac.uk/~jac22/books/mm/book/node21.html) 4. [Accounting](http://www.cl.cam.ac.uk/~jac22/books/mm/book/node22.html) | CO1 | 10 |
| b. | Analyze the benefits of receiver base reservations done by RSVP and discuss the various RSVP messages with a neat diagram. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Differentiate light weight sessions and tightly coupled conferences and explain how RTP achieves security and authentication in multimedia sessions. | CO1 | 10 |
| b. | Discuss the advantages of basic multicast internet model and the side effect of a host computer joining a multicast group. | CO1 | 10 |
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| 3. | a. | Explain the Image Multicaster, Shared White Board and Network Text Editor multimedia applications with suitable diagrams. | CO1 | 10 |
| b. | The distribution tree of the multicast network may consists of a lot of branches not having receivers of a multicast data transmission. Discuss the role of flood and prune protocols to make the minimized distribution trees. | CO1 | 10 |
| (OR) | | | | |
| 4. |  | Elaborate role of the various Center Based Tree (CBT) algorithms employed in multimedia multicast data transfers to map a multicast group address into an unicast address of a router. | CO1 | 20 |
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| 5. | a. | Describe in detail the H.261 video compression algorithm and its multiplexing and demultiplexing schemes with suitable diagrams | CO1 | 15 |
| b. | Draw and brief on the packet format of RTP. | CO1 | 5 |
| (OR) | | | | |
| 6. | a. | Explain the Session Announcement Protocol and its packet format with a neat diagram. | CO2 | 10 |
| b. | Discuss the role of TCP adoption algorithms in managing the larger workloads of the multimedia networks. | CO2 | 10 |
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| 7. | a. | Elaborate the Multi Circuit Based Conferencing conference control scheme and the role of multipoint control unit with a neat diagram. | CO2 | 10 |
| b. | Discuss the relay and redirection mechanisms in Session Initiation Protocol with respect to real-time scenarios. | CO2 | 10 |
| (OR) | | | | |
| 8. | a. | Explain distributed virtual reality and media on demand. | CO1 | 15 |
| b. | Differentiate MMCC and CCCP conference control mechanisms. | CO1 | 5 |
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|  | | **Compulsory**: |  |  |
| 9. | a. | Explain the role of digital signatures in achieving the security and authentication in multimedia data communication. | CO3 | 10 |
| b. | Discuss the various public key cryptography schemes and the key distribution mechanisms. | CO3 | 10 |