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

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

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| **Code :** | **18EC3024** | **Duration :** | **3Hrs** |
| **Sub. Name :** | **ADVANCED COMMUNICATION NETWORKS** | **Max. Marks :** | **100** |

**ANSWER ANY FIVE QUESTIONS (5 x 16 = 80 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Explain different protocols used in each layer of TCP/IP protocol suite. | CO2 | 8 |
| b. | Illustrate with an example TCP/IP congestion and flow control in internet. | CO1 | 8 |
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| 2. | a. | List the fairness issues in TCP. Write a detail note on how fairness issues are solved in TCP. | CO3 | 8 |
| b. | Explain about leaky bucket algorithm and its properties. | CO5 | 8 |
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| 3. | a. | Describe packet scheduling algorithms. Explain its requirements and choices in communication networks. | CO2 | 12 |
| b. | Define GPS & WFQ. | CO4 | 4 |
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| 4. | a. | What is RSVP? Explain RSVP frame format in detail. | CO2 | 8 |
| b. | Explain in detail about how characterization of traffic is done through Linearly Bounded Arrival Processes (LBAP). |  | 8 |
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| 5. |  | How does leaky bucket algorithm work? Explain in detail and mention the main advantage of token bucket over leaky bucket algorithm. | CO3 | 16 |
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| 6. |  | Briefly explain active queue management, RED, WRED and virtual clock. | CO5 | 16 |
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| 7. | a. | Mention the challenges in IP address lookup. | CO6 | 6 |
| b. | Define and explain about controlled prefix expansion algorithms. | CO4 | 10 |
| **COMPULSORY QUESTION (1 x 20 = 20 Marks)** | | | | |
| 8. | a. | Describe IP switching. | CO2 | 8 |
| b. | Write short note on the following:  i. IP over ATM.  ii. MPLS.  iii. DiffServ. | CO4 | 12 |