

No. of Printed Pages : 4

Sl. No.

## **C2-R4 : ADVANCED COMPUTER NETWORKS**

**DURATION : 03 Hours**

**MAXIMUM MARKS : 100**

**Roll No. :**

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**Answer Sheet No. :**

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**Name of Candidate :** \_\_\_\_\_ ; **Signature of Candidate :** \_\_\_\_\_

### **INSTRUCTIONS FOR CANDIDATES :**

- Carefully read the instructions given on Question Paper, Answer Sheet.
- Question Paper is in English language. Candidate has to answer in English Language only.
- Question paper contains Seven questions. The Question No. 1 is compulsory. Attempt any FOUR Questions from Question No. 2 to 7.
- Parts of the same question should be answered together and in the same sequence.
- Questions are to be answered in the ANSWER SHEET only, supplied with the Question Paper.
- Candidate cannot leave the examination hall/ room without signing on the attendance sheet and handing over his/her Answer Sheet to the Invigilator. Failing in doing so, will amount to disqualification of Candidate in this Module/Paper.
- After receiving the instruction to open the booklet and before answering the questions, the candidate should ensure that the Question Booklet is complete in all respects.

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**DO NOT OPEN THE QUESTION BOOKLET UNTIL YOU ARE TOLD TO DO SO.**

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1. (a) Examine the efficacy of routing algorithms DSR and AODV.  
 (b) What is Burke's Theory in Queuing theory ? Explain.  
 (c) What is the difference between Leaky Bucket and Token Bucket Algorithms ?  
 (d) What is Remote Procedure Call (RPC) ? What are the sequence of events of an RPC ?  
 (e) What is Asynchronous Transfer Mode (ATM) network ? Briefly explain.  
 (f) List the merits and demerits of using Distance Vector Routing Protocol.  
 (g) What are the common properties of end-to-end protocols ? (7x4)
  
2. (a) What are the Advantages and Disadvantages of Dedicated IP Addresses ?  
 (b) What are the benefits and limitations of VPN ?  
 (c) What are the various services provided by TCP to the application layer ? (8+5+5)
  
3. (a) What is an IPv6 address, and how does it differ from an IPv4 address ?  
 (b) Briefly explain about each of the layers of ATM and their functionalities.  
 (c) Discuss about the adaptation layers of ATM. (6+6+6)
  
4. (a) Explain the various IPv6 Address types and their scopes.  
 (b) Compare different multicast Routing algorithms. (10+8)
  
5. (a) What is a TCP timestamp, and why is it used ? Explain with proper example.  
 (b) What are the basic goals of Random Early Detection (RED) Algorithms ?  
 (c) What are the advantages and disadvantages of Voice over Internet Protocol (VoIP) ? (7+5+6)
  
6. (a) Explain the process of sending Multimedia from a streaming server to a media player.  
 (b) Explain the concept of Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA). (10+8)
  
7. (a) What is Real Time Streaming Protocol (RTSP) ? How RTSP works ?  
 (b) What are the ways of delivery for the audio/video from the streaming server to the media player ? (9+9)

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**SPACE FOR ROUGH WORK**

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