M.E. Second Semester (Computer Science & Engineering) (F.T.) (CGS)

13148 : Computer Communication Network : 2 RMEF 1 / 2 RME 1

P. Pages : 2 | AW - 3677

Time : Three Hours | Max. Marks : 80

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Notes : 1. Assume suitable data wherever necessary.
2. Illustrate your answer necessary with the help of neat sketches.
3. Use of pen Blue/Black ink/refill only for writing the answer book.

1. a) Explain IPv4 header format. **7**

b) Draw and explain TCP Header. **7**

OR

2. a) With the help of diagram explain the IPv6 packet with extension headers. **7**

b) Briefly explain UDP. What does UDP provide that is not provided by IP? **7**

3. a) Compare the X.25 and frame relay protocols stack? **7**

b) List and explain in brief ATM services categories. **6**

OR

4. a) Explain the brief merits and demerits of packet switching over circuit switching. **6**

b) Discuss ATM protocol architecture. Draw suitable diagram. **7**

5. a) What is meant by network of queues? Explain Jackson's theorem to analyses a network of queues? **7**

b) What is difference between multiserver and multiple single server queues? Explain in brief. **6**

OR

6. a) State and illustrate the concept of total probability and Bayer's theorem. **7**

b) Explain self-similar data traffic. **6**

7. a) Explain the following congestion control techniques. **8**
i) Back pressure ii) Choke packet
iii) Implicit congestion signaling iv) Explicit congestion signaling.

b) Discuss the flow control at multiple protocol layers. **6**

OR

8. a) Briefly describe Jacobson's algorithm. **7**

b) Explain objectives of frame Relay congestion control. **7**

9.	a)	Difference between fixed routing and adaptive routing.	**7**
	b)	Explain Breadth -first search for spanning tree.	**6**

OR

10.	a)	What are the key differences between BGP and IDRP.	**7**
	b)	What is OSPF. Explain OSPF packet format.	**6**
11.	a)	List the design goals for RSVP.	**7**
	b)	Explain in brief, the Real-Time Transport Protocol (RTP) header.	**6**

OR

12.	a)	What is Token Bucket scheme.	**7**
	b)	Explain the random early detection algorithm.	**6**

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