Reg. No. :

## **Question Paper Code : 80362**

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Seventh Semester

Electronics and Communication Engineering

CS 2060/ CS 807/ 10144 CSE 62/10144ECE33 – HIGH SPEED NETWORKS

(Common to Eighth Semester- Computer Science and Engineering)

(Regulations 2008/2010)

(Also common to PTCS 2060- High Speed Networks for B.E. (Part-Time) Seventh Semester - ECE- Regulations 2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A —  $(10 \times 2 = 20 \text{ marks})$ 

- 1. Give few examples for High Speed networks.
- 2. Draw the ATM cell structure.
- 3. What is meant by Kendall's notation?
- 4. Mention the congestion control techniques used in packet switching networks.
- 5. What are the factors to be considered for improving the TCP performance using Jacobson's algorithm?
- 6. Define ERICA algorithm for allocating fair share for each ATM connection
- 7. How random early detection helps in congestion avoidance?
- 8. List the limitations of WFQ queuing discipline.
- 9. What is session control?
- 10. Define label swapping.

## PART B — (5 × 16 = 80 marks)

- 11. (a) (i) Explain ATM Protocol architecture with a neat block diagram. (10)
  - (ii) Discuss the various Non-Real time ATM services. (6)

	(b)	(i)	Explain the call control procedure in frame relay network.	8)
		(ii)	Discuss the relevance of CSMA/CD in Gigabit Ethernets (4)	8)
12.	(a)	(i)	Describe traffic management in the networks.	8)
		(ii)	Briefly explain the effects of congestion control. (4)	8)
Or				
	(b)	(i)	Explain about the congestion control in Frame relay.	8)
		(ii)	Describe the essential of queuing models in network. (a	8)
13.	(a)	(i)	Explain the TCP timer management techniques in detail.	8)
		(ii)	Discuss in detail the congestion control techniques followed in ATI networks.	M 8)
Or				
	(b)	(i)	Explain in detail about ABR capacity allocation.	8)
		(ii)	Discuss in detail about ABR traffic control. (4)	8)
14.	(a)	(i)	Briefly discuss the various queuing disciplines of integrate services.	ed 0)
		(ii)	Discuss the advantages and downsides of Integrated Service architecture.	≥s 6)
Or				
	(b)	(i)	Explain Differentiated Services Architecture in detail. (1	0)
		(ii)	Explain the benefits of Random Early Detection algorithm. (	6)
15.	(a)	Exp	lain in detail about RTCP architecture and RIP protocol. (10	6)
			$\operatorname{Or}$	
	(b) Discuss in detail about the goals and characteristics of RSVP with operations.			ts 6)