**R15** 

## Code No: 125DT

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD B.Tech III Year I Semester Examinations, May/June - 2019 COMPUTER NETWORKS

(Common to CSE, IT)

Time: 3 hours Max. Marks: 75

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

## PART - A

	PART - A	
		(25 Marks)
1.a) b) c) d) e) f) g) h) i)	What are the advantages of layered protocol suites?  Mention the comparison of fiber optics and copper wire.  Define Gigabit Ethernet.  Write about P-Persistent CSMA.  Write short note on design issues of network layer.  What are the approaches to apply on the congestion control?  What is meant by Internetwork routing?  Mention the differences between IPv4 and IPv6.  Write short notes on TELNET.  Write about client-server model in brief.	[2] [3] [2] [3] [2] [3] [2] [3] [2] [3] [2] [3]
	Add ITO PART - B	(50 Marks)
2.	Explain OSI reference models, and compare with TCP/IP reference model.  OR	[10]
3.a) b)	Explain sliding window protocol with an illustration. Explain the Hamming Code with an example.	[4+6]
4.	Explain the following: a) Ethernet MAC sub layer protocol. b) ALOHA protocol.	[5+5]
5.	OR Explain about the following devices: a) Hub b) Switches	
	c) Router d) Gateway.	[10]
6.	Write in detail about Link-state routing algorithm and mention its advantages.	vantages and [10]

OR

7. What are the principles of congestion control? Explain it with virtual circuit subnets.

[10]

8.	Describe about flow Control and buffering in transport layer.	[10]
	OR	
9.	Write in detail about the Internet control message protocol.	[10]
10.	How does the Remote procedure call works? Explain it.	[10]
	OR	
11.	Write short notes on the following:	
	a) HTTP	
	b) DNS.	[5+5]

