

Code No: P18CST08

HALL TICKET NUMBER

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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)

III B.TECH I SEMESTER END REGULAR EXAMINATIONS, DEC/JAN – 2022/23
COMPUTER NETWORKS

(Common to CSE,CSIT,IT,CSE(IOTCSBT),AIDS,AIML Branches)

Time: 3 hours

Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A

Answer all the questions in Part-A (5X2=10M).

Q. No.	Questions	Marks	CO	KL
1.	a) Discuss the merits and demerits of bus topology, and star topology.	[2M]	1	2
	b) Explain the count-to-infinity problem.	[2M]	2	2
	c) Explain about IPV6 header format.	[2M]	3	2
	d) How can you handle buffering in the transport layer?	[2M]	4	2
	e) Write in brief about socket.	[2M]	5	2

PART-B

Answer One Question from each UNIT (5X10=50M)

Q. No.	Questions	Marks	CO	KL
UNIT-I				
2.	a) What is the significance of layered architecture? Explain the OSI layered architecture with a neat sketch.	[6M]	1	2
	b) Explain the architecture of the internet.	[4M]	1	2
OR				
3.	a) What are the different types of guided transmission media? Explain.	[5M]	1	2
	b) Compare Frequency Division Multiplexing and Time Division Multiplexing.	[5M]	1	2
UNIT-II				
4.	a) Explain the design issues of the data link layer.	[5M]	2	2
	b) How the error control mechanism can be implemented using CRC. Illustrate for the frame 1101011111 using generator $G(x) = x^4 + x + 1$	[5M]	2	3
OR				
5.	a) Discuss various framing techniques used in the data link layer.	[5M]	2	2
	b) Differentiate the slotted ALOHA and pure ALOHA with a neat diagram.	[5M]	2	2
UNIT-III				
6.	a) Illustrate various steps of the link state routing algorithm with a suitable example	[5M]	6	2
	b) How the choke packet mechanism is used in congestion control. Explain with a neat sketch.	[5M]	4	2
OR				
7.	a) What is the format of the IPV4 header? Describe the significance of each field.	[5M]	3	2
	b) Explain the distance vector routing algorithm with an example.	[5M]	6	2
UNIT-IV				



8.	a)	What are the services provided by the transport layer?	[5M]	4	2
	b)	Explain the three-way handshake connection establishment and release in TCP.	[5M]	4	2
OR					
9.	a)	What is the header format of UDP? Write the significance of each field.	[5M]	4	2
	b)	Explain the leaky bucket and token bucket algorithms.	[5M]	4	2
UNIT-V					
10.		What is DNS? Explain the working of DNS in detail	[10M]	3	2
OR					
11.	a)	Distinguish static web documents with the dynamic web documents	[5M]	3	2
	b)	Explain the Hyper Text Transfer Protocol.	[5M]	3	2
