Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S6 (S, FE) Examination January 2024 (2019 Scheme)

Course Code: ITT302

Course Name: INTERNETWORKING WITH TCP/IP

Max. Marks: 100 **Duration: 3 Hours**

PART A

Answer all questions, each carries 3 marks. Marks

1		Discuss the need for multiple protocols	(3)
2		What is proxy ARP? What are its advantages?	(3)
3		How does IPv6 differ from IPv4?	(3)
4		What are the main motivations to introduce ICMP protocol in the TCP/IP protocol suite?	(3)
5		Discuss the significance of HELLO protocol	(3)
6		Write a short note on the conceptual building blocks of Internet Multicast?	(3)
7		What is the relation between RTP and RTCP	(3)
8		What is NAT? What are its advantages	(3)
9		Differentiate IMAP and POP3	(3)
10		Explain persistent and non persistent HTTP connections	(3)

PART B

Answer any one full question from each module, each carries 14 marks.

Module I

11	a)	List and explain the main features of all the seven layers of the ISO/OSI reference model and compare it with TCP/IP Model	(14)

OR

12	a)	What is ARP? Discuss the ARP packet and its operations	(14)

Module II

13	a)	Explain the format of IPv4 datagram with all the fields	(14)

OR

14	a)	Explain in detail about ICMP with the format and different message types	(14)

Module III

15	a)	Explain the message types of BGP and discuss the characteristics	(14)

OR

16	a)	Discuss the format of RIP version 1 message. What is RIPng?	(14)

Module IV

17	a)	Explain in detail about TCP segment format.	(14)

OR

18	a)	What is MPLS? How can an MPLS label accompany a datagram across a Conventional network?	(9)
	b)	What are routing overlays?	(5)

Module V

19	a)	Explain the SDN architecture. How do the SDN controllers communicate with each other?	(14)

OR

20	a)	Explain DHCP. Explain the steps through which a dynamic IP address is allocated to a host?	(8)
	b)	Explain the working of DNS	(6)

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