Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Sixth Semester B.Tech Degree Examination June 2022 (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		What do you mean by Internetworking? Why is it required? Draw a suitable diagram.	(3)
2		What is a protocol? Why is it needed?	(3)
3		How do routers prevent datagrams from circling forever on the internet?	(3)
4		Describe the functions of ICMP.	(3)
5		How does poison reverse solve the slow convergence problem?	(3)
6		What is IP multicasting? Explain its features.	(3)
7		Explain the RTP header format.	(3)
8		What is VPN?	(3)
9		Explain the difference between persistent and non-persistent HTTP.	(3)
10		Draw the header format of DHCP.	(3)

PART B

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

Module I

11		Compare ISO/OSI reference model with TCP/IP Model.	(14)

OR

12		Explain in detail about ARP Operation and ARP packet.	(14)

Module II

13		Compare the datagram formats of IPv4 and IPv6.	(14)

OR

14	a)	What is a ping message? How does a ping message help diagnose internet problems?	(7)
	b)	Explain the fragmentation and reassembly of an IPv4 datagram with an example.	(7)

Module III

15	a)	What is OSPF? Explain the features of OSPF.	(7)
	b)	Explain the IPv4 and IPv6 multicast address space.	(7)

OR

16		What is BGP? Explain the characteristics and basic message types of BGP	(14)

Module IV

17	a	Explain label swapping and label switching router in detail.	(7)
	b	What information does NAT place in the translation table? How and when is the table initialized?	(7)

OR

18		Draw and explain the TCP finite state machine.	(14)

Module V

19		Explain the working of DNS.	(14)

OR

20	a	Explain SMTP in detail.	(7)
	b	Explain the architecture of SDN.	(7)

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