Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

SIXTH SEMESTER B.TECH DEGREE EXAMINATION(R&S), MAY 2019

Course Code: CS306

Course Name: COMPUTER NETWORKS

Max. Marks: 100 Duration: 3 Hours

PART A

Answer all questions, each carries3 marks. Marks

1		Distinguish between interface, protocol and layer in network software.	(3)
2		What are point to point and broadcast networks?	(3)
3		Draw the different frame formats in HDLC.	(3)
4		How does pure aloha and slotted aloha differ?	(3)

PART B

Answer any two full questions, each carries9 marks.

5	a)	List the design issues of layered network software.	(3)
	b)	Explain WAN and communication subnet?	(3)
	c)	Compare TCP/IP Reference model and OSI Reference model.	(3)
6	a)	With neat diagram, explain OSI reference Model.	(6)
	b)	Explain the working of CSMA/CD?	(3)
7	a)	Explain how Token management is done in IEEE 802.5.	(3)
	b)	Distinguish between switches and bridges.	(3)
	c)	List the features of Gigabit Ethernet.	(3)

PART C

Answer all questions, each carries3 marks.

8		List the network layer functions.	(3)
9		Differentiate between Flooding and broadcasting	(3)
10		How token bucket algorithm performs congestion control?	(3)
11		List the private IP address ranges of class A, B and C?	(3)

PART D

Answer any two full questions, each carries9 marks.

12	a)	Explain how routing is performed using link state algorithm? Illustrate with an example.	(6)
	b)	Give the relevance of age field in a link state packet.	(3)
13	a)	Explain any two congestion control algorithms	(5)

	b)	Discuss about the routing for mobile hosts.	(4)
14	a)	What is QoS? Explain any two methods to ensure QoS.	(6)
	b)	Subnet the Class C IP Address 206.16.2.0 so that you have 30 subnets. What is the subnet mask for the maximum number of hosts? How many hosts can each subnet have?	(3)

PART E

Answer any four full questions, each carries10 marks.

15	a)	How does BGP avoid count to infinity problem?	(3)
	b)	Draw the IPv6 fixed header format.	(3)
	c)	Explain the role of ICMP.	(4)
16	a)	Define address resolution problem. Explain about RARP	(6)
	b)	Give the importance of BOOTP.	(4)
17	a)	Discuss about the issues with IPv6	(3)
	b)	Explain how IGMP supports internet multicasting	(7)
18	a)	What are port numbers, give its importance in computer communication?	(3)
	b)	Distinguish between TCP and UDP header format.	(7)
19	a)	How FTP handles file transfer?	(3)
	b)	Explain various features of MIME?	(4)
	c)	What is the role of SMTP in E Mail message transfer?	(3)
20	a)	Explain DNS message types	(4)
	b)	List the components of SNMP?	(3)
	c)	Explain the procedure for calculating the UDP checksum?	(3)

****