PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2024
(Second Semester)

Branch – COMPUTER SCIENCE

TCP/IP PROTOCOL SUITE

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)
Answer ALL questions

ALL questions carry EQUAL marks   (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model? a) Application b) Host-to-Host c) Internet d) Network Access	K1	CO1
	2	If you use either Telnet or FTP, which is the highest layer you are using to transmit data? a) Application b) Presentation c) Session d) Transport	K2	CO1
2	3	Which layer 4 protocols is used for a Telnet connection? a) IP b) TCP c) TCP/IP d) UDP	K1	CO2
	4	A device operating at network layer is called a) Router b) Equalizer c) Bridge d) Repeater	K2	CO2
3	5	Header size of the ICMP message is a) 8-bytes b) 8-bits c) 16-bytes d) 16-bits	K1	CO3
	6	An IGMP packet is carried in an ___ packet. a) UDP b) IP c)Ethernet frame d) TCP	K2	CO3
4	7	Which of the following allows a router to respond to an ARP request that is intended for a remote host? a) Gateway DP b) Reverse ARP (RARP) c) Proxy ARP d) Inverse ARP (IARP)	K1	CO4
	8	What protocol is used to find the hardware address of a local device? a) RARP b) ARP c) IP d) ICMP	K2	CO4
5	9	TCP/IP is related to _____ a) ARPANET b) OSI c) DECNET d) ALOHA	K1	CO5
	10	Port number used by Network Time Protocol (NTP) with UDP is _____ a) 161 b) 123 c) 162 d) 124	K2	CO5

SECTION - B (35 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** Marks   (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Compare Physical Addresses and Logical Addresses.	K4	CO1
		(OR)		
	11.b.	What type of cable is ARCNET? Give an example.		
2	12.a.	Elaborate the different types of routing tables.	K5	CO2
		(OR)		
	12.b.	Illustrate PIM multicast routing with neat sketch.		
3	13.a.	What are the roles played by the IGMP protocol and a wide area multicast routing protocol?	K4	CO3
		(OR)		
	13.b.	Examine ICMP report connectivity failure.		
4	14.a.	Describe ARP packet format and encapsulation.	K6	CO4
		(OR)		
	14.b.	How does RARP work? Explain.		
5	15.a.	Compare TCP and UDP.	K5	CO5
		(OR)		
	15.b.	Discuss the TCP states.		

SECTION -C (30 Marks)
Answer **ANY THREE** questions
ALL questions carry **EQUAL** Marks   (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Demonstrate OSI Model with example.	K4	CO1
2	17	Analyze how optimal path is determined by routing.	K6	CO2
3	18	Elaborate the format of ICMP package.	K5	CO3
4	19	Illustrate ARP cache and static ARP table with example.	K5	CO4
5	20	Explain SCTP Services with neat sketch.	K4	CO5

Z-Z-Z   END