

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MCA DEGREE EXAMINATION DECEMBER 2024
(First Semester)

Branch – COMPUTER APPLICATIONS

COMPUTER NETWORKS

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	Which one of the following is the standard of WiMax? a) IEEE 802.16 b) IEEE 802.11 c) IEEE 802.17 d) IEEE 802.15	K1	CO1
	2	_____ is the practice of registering a domain only to turn around and sell it off to an interested party at a much higher price even has a name. a) name resolution b) cybersquatting c) reverse lookups d) vacation agent	K2	CO2
2	3	The client stub packs the procedure parameters into a message and makes a system call to send the message. The packing of the procedure parameters is called _____. a) message packing b) playback point c) marshaling d) portmapper	K1	CO1
	4	When persistent timer goes off, the sender may send a 1-byte special segment to the receiver. This packet is called a _____. a) timestamp b) keepalive timer c) persistence time d) window probe	K2	CO2
3	5	A _____ is a signal sent back to the data flow source to alleviate potential congestion in the network. a) choke packet b) jitter c) leaky packet d) flare packet	K1	CO1
	6	Show the one belongs to an unreliable and connectionless datagram protocol. a) IPv6 b) IPv12 c) IPv4 d) IPv3	K2	CO2
4	7	Find out the method generates signals in which the data streams of users are mixed with unique identifier codes. a) FDMA b) TDMA c) SDMA d) CDMA	K1	CO1
	8	Information bearing channels in ISDN are called _____. a) D channels b) Data channels c) B channels d) Voice channels	K2	CO2
5	9	Who developed the standards of GSM? a) ITU b) AT & T c) ETSI d) USDC	K1	CO1
	10	Which band is used to specify the reverse link operation in IS-95? a) 869-894 MHz b) 849-894 MHz c) 849-869 MHz d) 824-849 MHz	K2	CO2

Cont...

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.	Categorize and express the message formats used by the message transfer agents in an electronic mail system.	K3	CO1
	(OR)			
	11.b.	With neat sketch, explain the architecture of the Web.		
2	12.a.	List and discuss about the transport service primitives and the nesting of segments, packets, and frames with diagram.	K4	CO2
	(OR)			
	12.b.	Illustrate the layout of TCP Segment Header with neat diagram.		
3	13.a.	Apply the packet scheduling algorithm and explain how it allocates router resources among the packets.	K3	CO4
	(OR)			
	13.b.	Make use of Border Gateway Protocol to solve routing policies between autonomous systems and the propagation of routing.		
4	14. a	Explain about the frequency division multiple access method used to control multiplexed channel access.	K5	CO5
	(OR)			
	14.b.	Analyze the functions of circuit switching and packet switching techniques.		
5	15.a.	Discuss about GSM system architecture with neat sketch.	K4	CO3
	(OR)			
	15.b.	Propose the different types of wireless technologies used in industrial applications and list their advantages.		

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	List and analyze the various layers of OSI reference model with neat diagram.	K4	CO2
2	17	Categorize and explain the various elements of transport protocol in detail.	K4	CO3
3	18	Make use of the distance vector and link state routing algorithm and elaborate the process of routing packets from the source machine to the destination machine.	K4	CO3
4	19	Explain the different kinds of wireless data services in detail.	K5	CO5
5	20	Elaborate the various components of reverse CDMA channel.	K5	CO5