PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc(SS) DEGREE EXAMINATION MAY 2025
(Fourth Semester)

Branch – **SOFTWARE SYSTEM(Five years Integrated)**

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	What is the full form of OSI? a) optical service implementation b) open service Internet c) open system interconnection d) operating system interface	K1	CO1
	2	What is the term for an endpoint of an inter-process communication flow across a computer network? a) port b) machine c) socket d) pipe	K2	CO1
2	3	Which topology requires a multipoint connection? a) Ring b) Bus c) Star d) Mesh	K1	CO2
	4	What is the term for the data communication system within a building or campus? a) MAN b) WAN c) PAN d) LAN	K2	CO2
3	5	What type of transmission is involved in communication between a computer and a keyboard? a) Simplex b) Full-duplex c) Half-duplex d) Automatic	K1	CO3
	6	Which of the following allows you to connect and login to a remote computer? a) SMTP b) HTTP c) FTP d) Telnet	K2	CO3
4	7	Which of the following field in IPv4 datagram is not related to fragmentation? a) Flags b) Offset c) TOS d) Identifier	K1	CO4
	8	Find the length of an IP address in IPv6. a) 4bytes b) 128bits c) 8bytes d) 100bits	K2	CO4
5	9	What is the main advantage of UDP? a) More overload b) Reliable c) Low overhead d) Fast	K1	CO5
	10	Find the correct expansion of SMTP. a) Simple Mail Transfer Protocol b) Simple Message Transfer Protocol c) Simple Mail Transmission Protocol d) Simple Message Transmission Protocol	K2	CO5

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.	Summarize the applications of networks.	K2	CO1
		(OR)		
	11.b.	Explain about the types of networks with example.		
2	12.a.	Discuss about multiplexing with example.	K3	CO2
		(OR)		
	12.b.	Write about error detection and correction.		
3	13.a.	Demonstrate the sliding window protocol.	K3	CO3
		(OR)		
	13.b.	Illustrate the switches and routers.		
4	14.a.	Distinguish IPV4 and IPV6 with example.	K4	CO4
		(OR)		
	14.b.	Explain the OSPF routing protocol.		
5	15.a.	Sketch the flow control and congestion control.	K4	CO5
		(OR)		
	15.b.	Discuss about SMTP with example.		

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	Classify the types of network topologies with neat diagram.	K4	CO1
2	17	Explain the cyclic redundancy check algorithm with example.	K4	CO2
3	18	Discuss about the stop and wait protocol and its applications.	K4	CO3
4	19	Summarize the distance vector routing.	K4	CO4
5	20	Explain the following with example. i). FTP ii). HTTP	K4	CO5

Z-Z-Z END