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23CAU527N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCA DEGREE EXAMINATION DECEMBER 2025
(Fifth Semester)

Branch - **COMPUTER APPLICATIONS**

PRINCIPLES OF NETWORKING

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

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

Question No.	Question	K Level	CO
1	In data communication, the variation in the packet arrival time is referred as _____. a) Latency time b) Seek time c) Serenity d) Jitter	K1	CO1
2	Show in which topology, every device has a dedicated point-to-point link to every other device. a) Star b) Mesh c) Bus d) Ring	K2	CO1
3	Which describes the position of wave forms relative to time 0? a) Radians b) Variance c) Phase d) Median	K1	CO2
4	Identify which is an example of guided transmission media. a) Twisted-pair cable b) Microwaves c) Satellite links d) Radio waves	K2	CO2
5	What is the size of a MAC address _____. a) 128 bit b) 48 bit c) 32 bit d) 64 bit	K1	CO3
6	Show_____ the widely known IEEE standard for WiFi. a) IEEE 802.3 b) IEEE 802.16 c) IEEE 802.11 d) IEEE 802.15	K2	CO3
7	Which among the following the default VLAN ID (VID) for most switches. a) VLAN 10 b) VLAN 100 c) VLAN 4096 d) VLAN 1	K1	CO4
8	Identify which is used to establish connection by TCP. a) Three-way handshake b) N/W discovery c) N/W advertisement d) APIPA	K2	CO4
9	The address of a resource in the web and method to access it is provided by _____. a) FTP b) URL c) SMTP d)CDP	K1	CO5
10	Show the highest layer on which TELNET operates. a) Network Layer b) Transport Layer c) Application Layer d) Data Link Layer	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	Enumerate the fundamental characteristics of Data Communications System.	K2	CO1
	(OR)		
11.b.	Describe the various types of Networks.		
12.a.	Illustrate a basic sine wave representing the simple periodic analog signal.	K3	CO2
	(OR)		
12.b.	Explain Packet Switching with an example.		
13.a.	Summarize connectionless and connection oriented protocol.	K3	CO3
	(OR)		
13.b.	Discuss the operation of cellular telephony.		
14.a.	List out the major difference between the router and a switch.	K4	CO4
	(OR)		
14.b.	Explain the three-way handshaking in TCP.		
15.a.	Summarize the Internet Mail Access Protocol Version 4 (IMAP4).	K4	CO5
	(OR)		
15.b.	Discuss about streaming stored audio/video.		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Question No.	Question	K Level	CO
16	Explain the seven layers of OSI model.	K4	CO 1
17	Illustrate circuit switched networks.	K4	CO 2
18	Describe the characteristics of standard Ethernet.	K4	CO 3
19	Summarize the role of transparent switches in link-layer.	K4	CO 4
20	Explain the underlying mechanism of TELNET.	K4	CO5

Z-Z-Z END