GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, ODISHA, GUNUPUR
(GIET UNIVERSITY)

B.C.A (Fourth Semester) Regular Examinations, April – 2025

BCA23403 - Computer Networks

(BCA)

Time: 3hrs   Maximum: 60 Marks

(The figures in the right hand margin indicate marks)

PART – A   **(2 x 5 = 10 Marks)**

Q.1. Answer *ALL* questions

		CO #	Blooms Level
a.	What are the components of data communication?	CO1	K1
b.	Define error and mention different types of error.	CO2	K1
c.	What is Ethernet?	CO3	K1
d.	What is the meaning of internetworking?	CO4	K1
e.	Differentiate between TCP and UDP.	CO5	K1

PART – B   **(10 x5=50 Marks)**

Answer *ALL* questions

		Marks	CO #	Blooms Level
2. a	Draw and explain OSI model of computer network.	10	CO1	K2
	(OR)			
b.	Using Hamming code techniques find out error and correct the error if data sent is 100100 and data received is 101100.	5	CO2	K3
c.	Apply CRC method to check whether the data 11100101 is having any error or not where the divisor polynomial is given as X^3+X+1.	5	CO2	K3
3.a.	What is Ethernet ? Describe the different fields of the Ethernet Packet.	5	CO3	K1
b.	Write short notes on Bluetooth wireless network.	5	CO3	K1
	(OR)			
c.	Describe the IPv6 packet format.	8	CO4	K1
d.	What are the advantages of IPv6 over IPv4 ?	2	CO4	K3
4.a.	Draw the TCP datagram format. Explain functions of all the fields in detail.	8	CO5	K2
b.	What are the features of TCP protocol ?	2	CO5	K1
	(OR)			
c.	Explain different mechanisms used in congestion control ?	10	CO5	K2
5.a.	Draw the IPv4 Datagram format and define the role of each field.	10	CO4	K2
	(OR)			
b.	Explain CSMA/CA and CSMA/CD in random access protocol.	10	CO3	K1
6.a.	Explain briefly about TCP/IP protocol suite	10	CO1	K2
	(OR)			
b.	What is flow control? Discuss different type of flow control mechanisms.	10	CO2	K2

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