

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: BCA
BRANCH: COMPUTER SCIENCE**

**SEMESTER : V/ADD
SESSION : MO/2024**

SUBJECT: CA303 COMPUTER NETWORKS

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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			CO	BL
Q.1(a)	Explain working principle of a LAN. Also explain topologies used in LAN.	[5]	CO1	BL2
Q.1(b)	Explain role of NIC in detail. How does it help in transmission and reception of data.	[5]	CO1	BL2
Q.2(a)	Explain working of each layer of TCP/IP protocol suit in detail .	[5]	CO2	BL2
Q.2(b)	Write the similarity and differences between fiber optic cable and coaxial cable with the help of a suitable diagram.	[5]	CO2	BL3
Q.3(a)	Explain the need of DTE and DCE interface. Show with the help of suitable diagram about transmission process using these interfaces.	[5]	CO3	BL4
Q.3(b)	Explain working of Time division multiplexing and Statistical time division multiplexing.	[5]	CO3	BL4
Q.4(a)	How flow control is done in data link layer. Explain Go back N ARQ in detail.	[5]	CO4	BL4
Q.4(b)	Differentiate between static and Dynamic routing. Explain any routing algorithm for successful data transmission.	[5]	CO4	BL4
Q.5(a)	Write short notes on FDDI.	[5]	CO5	BL3
Q.5(b)	Write short notes on Network Security including types of attack and preventive measures taken for a secured Network.	[5]	CO5	BL3

:20/11/2024:M