

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI**  
**(MID SEMESTER EXAMINATION MO/2024)**

**CLASS: BCA**  
**BRANCH: BCA**

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

**SUBJECT: CA307 INTRODUCTION TO COMPUTER NETWORKS**

**TIME: 02 Hours**

**FULL MARKS: 25**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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		CO	BL
Q.1	Give some instances of how networks are a part of your life today. What are some of the factors that determine whether a communication system is a LAN, MAN or WAN.?	[5] 1	2
Q.2	How do you differentiate physical topology and logical topology. Discuss the consequences, if a connection fails, for four devices arranged in each of the topologies, Bus topology, Ring topology, Star topology and Mesh Topology.?	[5] 1	2
Q.3	What is the form of signal in twisted pair cable & co-axial cable. How does this differ from the signal in fibre optic cable.?	[5] 2	2
Q.4	List the layers of OSI model. What is the function of data link layer. How does OSI model differ from TCP/IP model.?	[5] 2	2
Q.5	Discuss the functions and services provided by the physical layer. Explain the purpose of using NULL modem.?	[5] 3	1

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