

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI**  
**(MID SEMESTER EXAMINATION MO/2023)**

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

**SEMESTER : V**  
**SESSION : MO/2023**

**SUBJECT: CA322 NETWORK SECURITY**

**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
- 

			CO	BL
Q.1(a)	Explain what is OSI Model and its purpose?	[2]	1	2
Q.1(b)	Using a block diagram describe the functions associated with different layers of the OSI model.	[3]	1	3
Q.2(a)	Briefly describe the multi-level model of security using suitable example.	[2]	2	2
Q.2(b)	Differentiate between Active & Passive attacks and describe some of them.	[3]	4	4
Q.3(a)	Briefly discuss the typical properties of a Hash Function.	[2]	2	2
Q.3(b)	Using a block diagram explain the Electronic Code Block (ECB) encryption technique.	[3]	5	3
Q.4(a)	Describe key differences between Symmetric and Asymmetric cryptography.	[2]	2	4
Q.4(b)	Explain the working of DES and its different versions used for encryption.	[3]	3	3
Q.5(a)	Briefly explain what a Message Digest is and where is it used?	[2]	2	1
Q.5(b)	Write a detailed note on the working of MD4.	[3]	3	2

**:::::26/09/2023 M:::::**