

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER- 1 (NEW) • EXAMINATION – WINTER - 2022

Subject Code: 4715902

Date: 24 Feb 2023

Subject Name: Computer Networks and Security

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a) What do you mean by Internet of Things? Discuss the minimum requirement for the network infrastructure of IoT. **07**
- (b) Define the network security goals for the secure communication. **07**
- Q.2 (a) Write a short note on Transmission Control Protocol. **07**
- (b) Define addressing in the application layer with URL fields. **07**
- OR**
- (b) Examine the issues addressed by network layer with diagram? **07**
- Q.3 (a) Discuss Access Control Matrix for authentication and Authorization. **07**
- (b) Discuss the performance parameters in detail in reference of routing: Network Delay, Packet Loss and Throughput. **07**
- OR**
- Q.3 (a) Write a short note on User Datagram Protocol. **07**
- (b) Explain the different examples of Application Layer Protocols. **07**
- Q.4 (a) Discuss the TCP flow control and TCP congestion control. **07**
- (b) Write a short note on RSA algorithm. **07**
- OR**
- Q.4 (a) Write a short note on IPv4. **07**
- (b) Explain Link Layer Error Control mechanism. **07**
- Q.5 (a) Write a short note on DNS Protocol. **07**
- (b) Discuss Otway-Rees and type flaw attacks. **07**
- OR**
- Q.5 (a) Write a short note on HTTPS Protocol. **07**
- (b) Discuss Dolev-Yao attacker model in detail. **07**
