

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
M.SC (CS)- INTEGRATED– SEMESTER III- EXAMINATION –WINTER-2023

Subject Code:1330303

Date: 04/12/2023

Subject Name: Client Server Architecture and Interface

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.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

- Q.1**
- (a) List out the advantages of client/server computing. **03**
 - (b) Which are the various characteristics of client/server architecture? **04**
 - (c) What is client server architecture? Explain working of client server architecture with diagram? **07**

- Q.2**
- (a) What distinguishes the mainframe-based computer environment from the client/server computing ecosystem? **03**
 - (b) List categories of client server computing. Explain any one in brief. **04**
 - (c) What do you mean by availability, reliability, serviceability, and security in client-server architecture? Give examples to illustrate. **07**

OR

- (c) Illustrate the Common Object Request Broker Architecture in detail. **07**

- Q.3**
- (a) Highlight the features of network operating system. **03**
 - (b) What is network operating system? Briefly describe it. **04**
 - (c) Discuss about the basic principles of effective GUI designs. **07**

OR

- Q.3**
- (a) Illustrate the classes of the server machines. **03**
 - (b) Prepare a short note on Open System Interconnect. **04**
 - (c) What is server? Describe different types of server in detail. **07**

- Q.4**
- (a) List out various server functionalities **03**
 - (b) List out the factors that involved in the success of client/server Computing **04**
 - (c) Mention name of various protocols used for client/server communication? Explain any two in details. **07**

OR

- Q.4** (a) Describe the components of open system **03**
(b) What are the major components of WAN. **04**
(c) Describe the Inter-process communication in details. **07**
- Q.5** (a) Explain the concept of session and state in client/server applications. **03**
(b) Explain the importance of user management and access control in system administration. **04**
(c) What are the emerging trends and technologies shaping the future of client/server computing? **07**
- OR**
- Q.5** (a) Describe the key components of typical client/server application architecture in short. **03**
(b) Explain the difference between a stateless and stateful client/server application. **04**
(c) Explain cookies and session variables in client/server applications. **07**
