

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-VII Examination-Nov/Dec.-2011

Subject code: 170704

Date: 26/11/2011

Subject Name: Advance Computing Technology

Time: 10.30 am-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) Define Cluster Computing. Explain its architecture in detail. **07**
(b) Explain FLS algorithm in detail & explain resource location study. **07**

- Q.2** (a) Explain pros and cons of cloud computing. Discuss where to use cloud computing and where not to use cloud computing. **07**
(b) Explain design goal of middleware in cluster computing. Explain in brief the key services of SSI and availability infrastructure. **07**

OR

- (b) Define Grid Computing. Explain applications of grid computing in details. **07**

- Q.3** (a) Explain Beowulf Cluster and Berkeley NOW clusters. **07**
(b) Explain I-WAY project in detail. **07**

OR

- Q.3** (a) Explain the service oriented model of third generation of grid in detail. **07**
(b) Explain the different types of data that is stored on clouds and explain the important parameters for the protection of that data. **07**

- Q.4** (a) Explain the basic requirement that resource sharing algorithm should meet in cluster. **07**
(b) Why grid computing requires distributed operating system and new programming model? Explain in detail. **07**

OR

- Q.4** (a) Define Production Grid. Explain OGSA (Open Grid Service Architecture) in detail. Give some example of production grid. **07**
(b) Define Virtual Organization. Describe the nature of Grid Architecture in detail. **07**

- Q.5** (a) Compare traditional and cloud data center based on technology aspects. **07**
(b) What is significance of PaaS? Explain the role of Google's App engine platform in PaaS. **07**

OR

- Q.5** (a) Explain Amazon EC2 project with its contribution in IaaS. **07**
(b) What is the difference between grid computing and Cluster computing? Explain the future of grid computing in detail. **07**
