

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – SUMMER • 2015

Subject Code: 170704

Date: 04/05/2015

Subject Name: Advance Computing Technology

Time: 02.30pm-05.00pm

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) Discuss cluster categorization in detail. **07**
(b) Which are the characteristics of a good resource sharing algorithm? **07**

- Q.2** (a) Discuss the components used to build clusters. **07**
(b) Answer the following questions.
1. What are the benefits of using heterogeneous clusters? **03**
2. What is metacluster? How is metacluster made secure? **04**

OR

- (b) Which are the services provided by resource management and scheduling? **07**

- Q.3** (a) Define Grid Computing. Discuss building blocks of Grid in detail. **07**
(b) Which design features are required at the data and computational fabric of the Grid? **07**

OR

- Q.3** (a) Explain the certification authority model of Grid. **07**
(b) Discuss any three scenarios that accelerate the emergence of Virtual Organizations. **07**
Also mention the similarities and differences between these scenarios.

- Q.4** (a) Explain Grid applications in detail. **07**
(b) Explain layered Grid architecture using diagram. **07**

OR

- Q.4** (a) Discuss Amazon EC2 in detail. **07**
(b) Mention all the features that are expected from each PaaS solution. **07**

- Q.5** (a) Which common features of Cloud Computing can benefit organizations? Discuss each feature in detail. **07**
(b) Discuss private and public clouds along with similarities and differences. **07**

OR

- Q.5** (a) Which are the characteristics that have to be in place for SaaS to be commercially viable? **07**
(b) Discuss key areas related to security and privacy of data in cloud. **07**
