

**GANPAT UNIVERSITY**  
**M. Tech SEMESTER-II CE**  
**REGULAR EXAMINATION JUNE - 2013**  
**3CE204: GRID & CLOUD COMPUTING**

**Time: 3 Hours]**  
**Instructions:**

**[Total Marks: 70**

1. Figures to the right indicate full marks
2. Each section should be written in a separate answer book
3. Be precise and to the point in your answer

**SECTION-I**

**Q.1 Answer the following.**

- (A) Define the following terms: (6)
- a) Distributed Computing
  - b) Utility Computing
  - c) Grid Computing
- (B) Describe Resource sharing using VOs on an "as-needed" basis. (6)

**OR**

**Q.1 Answer the following.**

- (A) Explain the Hour Glass Model of Grid Computing. (6)
- (B) Describe basic elements of Grid Computing Environment. (6)

**Q.2 Answer the following.**

- (A) Explain the service model and naming mechanism of OGSA. (5)
- (B) Define the following terms: (6)
- a) Web Service.
  - b) Grid Service.
  - c) Service Data Element.

**OR**

**Q.2 Answer the following.**

- (A) Describe various components of Open Grid Service Infrastructure. (5)
- (B) Define Co-Allocation. Compare Grid scheduler with Local scheduler. (6)

**Q.3 Answer the following.**

- (A) Discuss Resource discovery and System selection for Grid scheduling. (6)
- (B) Explain Cluster and High Performance Computing. (6)



**SECTION-II**

**Q.4 Answer the following.**

- (A) Explain Grid computing security taxonomy in brief. (6)
- (B) Discuss fundamental concepts of Information security. (6)

**OR**

**Q.4 Answer the following.**

- (A) Describe Digital certificate system for Grid. (6)
- (B) Explain Delegation and Single Sign-on process in the Grid. (6)

**Q.5 Answer the following.**

- (A) Explain various models of Cloud Computing. (6)
- (B) Describe architectural components of CloudSim. (5)

**OR**

**Q.5 Answer the following.**

- (A) Describe the architecture of Hadoop. Define steps to install Hadoop on windows. (6)
- (B) Discuss various types of Virtualization. (5)

**Q.6 Answer the following.**

- (A) Discuss EUCALYPTUS as an open-source cloud-computing framework. (6)
- (B) Write short note on Nagios as Grid monitoring tool. (6)

**END OF PAPER**