GANPAT UNIVERSITY
M. Tech SEMESTER-II CE
REGULAR EXAMINATION MAY/JUNE – 2012
3CE204: GRID COMPUTING

Time: 3 Hours]   [Total Marks: 70

Instructions:
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)   Describe the Grid Middleware in detail.   (6)
(B)   Explain the following terms: (6)
    (i) High-Performance Computing
    (ii) Internet Computing

OR

Q.1   Answer the following.
(A)   Explain the Hour Glass Model of Grid Computing.   (6)
(B)   Define Virtual Organization. Describe a typical view of Grid Computing Environment.   (6)

Q.2   Answer the following.
(A)   Explain the technical details of OGSA.   (5)
(B)   Define following terms: (6)
(i) Stateful Web Service.
(ii) Grid Service Description.
(iii) Service Data Element.

OR

Q.2   Answer the following.
(A)   Define OGSI. Describe various components of Open Grid Service Infrastructure.   (5)
(B)   Define Resource Management. Explain General Resource Management Framework.   (6)

Q.3   Answer the following.
(A)   Explain the architecture of Globus Tool Kit Middleware.   (6)
(B)   Differentiate Distributed, Grid and Cloud Computing.   (6)

SECTION-II

Q.4 Answer the following.

(A) Explain Host-level security issues and Solutions for Grid. (6)

(B) Describe various elements of Globus resource management Architecture. (6)

OR

Q.4 Answer the following.

(A) Describe the current status of Grid Security. (6)

(B) Write short note on Alchemi as a Grid Computing Framework. (6)

Q.5 Answer the following.

(A) Explain various models of Cloud Computing. (6)

(B) Define Web services. Explain Web services standards. (5)

OR

(A) Describe the architecture of Hadoop. Explain Map-Reduce with an Example. (6)

(B) Discuss the challenges of Cloud Computing. (5)

Q.6 Answer the following.

(A) Explain Grid Security Infrastructure. (6)

(B) Write short note on Cluster computing. (6)

END OF PAPER