B.TECH.
THEORY EXAMINATION (SEM–VIII) 2016-17
GRID COMPUTING

Time : 3 Hours   *Max. Marks : 100*

Note : *Be precise in your answer. In case of numerical problem assume data wherever not provided.*

Section A

1. Answer all the questions.   10x2=20

a) List the derivatives of grid computing?
b) What are the grid computing applications?
c) List some of the QOS features available in grid computing.
d) What is the relationship between OGSA, OGSI and Web Services?
e) What are the two commonly understood SOA architecture?
f) What are the features of grid service container?
g) State the features of data grids.
h) Define Grid Security Infrastructure (GSI).
i) Define Simple Object Access Protocol (SOAP).
j) Compare and contrast Grid Computing and P2P computing.

Section B

2. Answer any five questions from this section. 5x10=50

a) Explain the layered architecture of grid with a neat diagram.
b) What is Globus Toolkit? Trace its history and background.
c) What is OGSA? Describe how it extends web services with suitable illustrations.
d) What is the purpose of gLite? Discuss on grid middleware services offered by them.
e) Discuss briefly about organization building and using grid based solution to solve their computing data and network requirements.
f) What are the data and functional requirements of grid computing?
g) Describe about the relation of grid architecture with other distributed technologies.
h) What are the fundamental components of SOAP specification?

Section C

Answer any two questions of the following.   2x15=30

3.   a) Explain briefly about grid infrastructure.
        b) Discuss in detail about web service and grid service.

4.   a) What are the two ways available to create and add service data to service data set?
        b) Explain various components and features of grid middleware.

5.   Write short notes on any three of the following
        a) JAMM
        b) WSRF
        c) Ganglia and GridMon
        d) LSF-Grid Scheduling with QoS