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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