C 21460

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Name.................................

Reg. No..............................
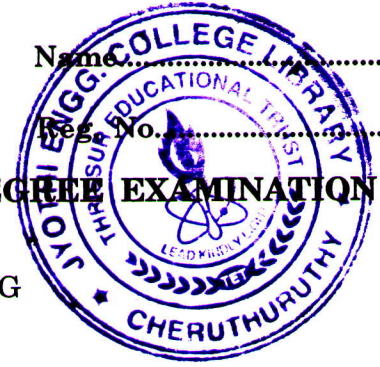
EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
APRIL 2017

IT 09 804 L 20—GRID COMPUTING

(2009 Admissions)

Time : Three Hours

Maximum : 70 Marks

Part A

Short answer questions (One / two sentences).

1. Differentiate Data Grid and Computation Grid.

2. Name the classification of grid computing organization based on their functional role.

3. How is grid computing used in engineering and design ?

4. What are the collective services available in grid computing.

5. What are the main purposes of use cases defined by the OGSA group ?

(5 × 2 = 10 marks)

Part B

*Answer any **four** questions.*
Analytical / Problem solving questions.

6. Discuss in detail any two important functionalities that must be provided by this grid computing infrastructure.

7. Give an account of grid enabling and network services.

8. Explain Grid technology implementation in Telecommunications sector.

9. Explain about creating and managing grid services.

10. Explain briefly about Commercial grid. What are the OGSA platform components ?

11. Explain Hive computing for transaction processing grids.

(4 × 5 = 20 marks)

Part C

*Answer **all** questions.*
Descriptive / Analytical / Problem solving questions.

12. (a) Explain the layered grid architecture and its relationship to the internet protocol architecture.

Or

(b) Explain in detail with neat diagram complete IT infrastructure.

Turn over

13. (a) Explain about the organization working to adopt grid concepts into commercial products.

Or

(b) Explain desktop supercomputing and native programming for grids.

14. (a) Explain how web services are used for defining interoperable resources in grid computing.

Or

(b) Discuss in detail the role of desktop grids in an enterprise computing infrastructure.

15. (a) Explain with neat diagram the layered architecture of HPC clusters.

Or

(b) Write the benefits of Hive computing compared to existing computational solutions.

(4 × 10 = 40 marks)