

Roll No.

CS-3401**B. E. (Eighth Semester) EXAMINATION June, 2012****(Computer Science & Engg. Branch)****ADVANCE COMPUTING PARADIGM****(Elective – IV)****(CS – 3401)***Time : Three Hours**Maximum Marks : 100**Minimum Pass Marks : 35*

Note : Attempt any *five* questions. *One* question from each Unit is compulsory. All questions carry equal marks.

Unit – I

1. (a) Discuss in detail the architecture of Grid computing system.
- (b) Explain the types of grids and Grid activities briefly.

Or

2. (a) Discuss two commercial applications of clusters and grids.
- (b) Explain cluster programming environment and tool briefly.

Unit – II

3. (a) Explain quantum states and gates briefly.
- (b) What is quantum parallelism and explain some quantum algorithms briefly.

[2]

CS-8401

Or

4. (a) Explain quantum computing with architecture. 10
- (b) What is the power of quantum computing ? Discuss its applications. 10

Unit – III

5. (a) Explain the concept of optical computing briefly. 10
- (b) Discuss the role of Bottom-up and Top-down approaches in Nano-technology. 10

Or

6. (a) Discuss the fundamental issues in nano-materials and also discuss the challenges in nano-technology. 10
- (b) What is Nano-computing ? Explain the nano-information processing briefly. 10

Unit – IV

7. (a) Explain the role of content manager. Describe its various information and relevances in the mobile computing environment. 10
- (b) Give *four* challenges of mobile computing. 5
- (c) Discuss mobile applications and services. 5

Or

8. (a) Explain Ad hoc and Sensor Networks briefly. 10
- (b) Discuss the security issues of Wireless Network that are different from Wired Network. 10

Unit – V

9. (a) Explain how cloud computing is different from grid computing or thin clients. 10
- (b) What are three types of cloud services ? Give an example for each type. 10

Or

10. (a) What is cloud computing ? Explain briefly with architecture and characteristics. 10
- (b) Explain the following : 10
- (i) Cloud components
 - (ii) Cloud storage