Code No: 07A7EC24 **R07** **Set No. 2**

IV B.Tech I Semester Examinations,November 2010
ADVANCED COMPUTING CONCEPTS
Common to Information Technology, Computer Science And Engineering
Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Explain Message passing interface.
   (b) Write briefly about fast sockets. [8+8]
2. Give the two representations of CNOT gate, Briefly explain the CNOT gate. Give Truth table. [16]
3. (a) What the role of 3G mobiles in pervasive computing.
   (b) Explain the terms:
      i. CHTML
      ii. WML. [8+8]
4. Illustrate the architecture of microkernel of NanOS. [16]
5. (a) What are the main NGOSS design goals?
   (b) What are the business benefits are offered by NGOSS? [8+8]
6. Write the relationship of grid architecture with other distributed technologies. [16]
7. What is a runtime system? Show how compiler generates code for a sequential code with an example. [16]
8. (a) Illustrate briefly the airline check in and booking scenario?
   (b) Explain the Visual Age Micro Edition J9 VM. Briefly. [8+8]

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Code No: 07A7EC24 **R07** **Set No. 4**

IV B.Tech I Semester Examinations,November 2010
ADVANCED COMPUTING CONCEPTS
Common to Information Technology, Computer Science And Engineering
Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain the pervasive computing scenarios:
   (a) Automobile
   (b) Mobile Workplace
   (c) Home. [6+5+6]
2. What is meant by infrastructure assessment? Explain in detail. [16]
3. What is scalable Coherent interface? List out its advantages. Write briefly about Active Message implementation. [16]
4. (a) What are rigid jobs? Write about process migration in rigid jobs.
   (b) What is meant by MOSIX? Explain its features. [8+8]
5. (a) Compare Bits and Qubits.
   (b) Give some examples for quantum computation. [8+8]
6. (a) Explain the safeway remote shopping service.
   (b) Explain how WAP access is added to airline system. [8+8]
7. Write about the processor and network of Beowulf system. [16]
8. Describe possible benefits of Grid Computing. [16]

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Code No: 07A7EC24 **R07** **Set No. 1**

IV B.Tech I Semester Examinations,November 2010
ADVANCED COMPUTING CONCEPTS
Common to Information Technology, Computer Science And Engineering
Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) What steps does Synchronization Protocols Consists of?
   (b) What are the Characteristics of Jini? [8+8]
2. (a) What are the performance issues in performance evaluation of heterogeneous system?
   (b) Mention the classes of heterogeneous system.
   (c) Define power weight. [6+6+4]
3. What are software agents? What are the attributes of agents? What are agent technologies? [16]
4. (a) Write about data locations algorithms.
   (b) Write the issues in controlling access to shared data. [8+8]
5. (a) Discuss the importance of pervasive computing Market
   (b) What is meant by i-mode system? What is its strength? [10+6]
6. Illustrate the architecture of NanOS. Explain its components. [16]
7. Draw diagram of Grid types arranged according to complexity? Explain briefly. [16]
8. Draw the quantum circuit for teleporting a qubit. Explain quantum teleportation. [16]

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Code No: 07A7EC24 **R07** **Set No. 3**

IV B.Tech I Semester Examinations,November 2010
ADVANCED COMPUTING CONCEPTS
Common to Information Technology, Computer Science And Engineering
Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) What are the Services offered by universal plug and play?
   (b) Explain the steps in Universal Plug and Play. [8+8]
2. (a) What are the characteristics of pervasive computing?
   (b) Explain how location based services explain the ability of mobile devices to determine the position of the device. [8+8]
3. What is NICAM? Explian its design and primitives. [16]
4. (a) What is a control loop? Draw the diagram of control loop?
   (b) What are the elements of basic sub elements of a control loop? [8+8]
5. Draw the quantum circuit for Deutsch algorithm. Write the concept of the Algorithm. [16]
6. (a) Which performance factors are introduced by cluster into parallel computing?
   (b) Classify the parallel systems by the cluster memory hierarchy. [8+8]
7. Define the attribute dynamic level. Explain dynamic level scheduling algorithm with an example. Give its time complexity. [16]
8. What are the open standards for Grid Computing? [16]

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