Roll No ....

MSE-203

M.E./M.Tech., II Semester

Examination, December 2015

Software Architecture

Time : Three Hours

Maximum Marks : 70

Note: i)　Attempt any five questions.

ii)　All questions carry equal marks.

1. a) Describe functional and non-functional properties of software architecture.　7
   b) What are various software design patterns? Explain any two with example.　7

2. a) What are advantages of framework in software development?　5
   b) What are the roles of a person in software design?　4
   c) What is unified process? Explain its architecture.　5

3. a) What are the characteristics of service oriented architecture?　5
   b) What are current trends in service oriented Analysis and design?　5
   c) Write short notes on :　4
      i)　Enterprise 50A
      ii)　Quality Architecture

4. a) Explain the situations where layered architecture is beneficial.　5
   b) What are the advantages of repositories during software development?　5

   c) Explain the challenges of Heterogeneous architecture and proven solution for such problems.　4

5. a) Differentiate the term 'data abstraction', 'data Encapsulation' and 'data hiding'.　5
   b) What are the usage of pipes and filters?　5
   c) How event based system are designed using object oriented approach?　4

6. a) What are various tools available for architecture design? Explain any one.　5
   b) Describe observations needed for environmental studies for architectural design.　5
   c) Define the term 'Requirement Analysis'. Explain necessary steps for requirement analysis.　4

7. a) Write short notes on :　5
      i)　Mobile Robotics
      ii)　Instrumentation software
   b) What are various issues of interoperability to develop internet based projects?　5
   c) Explain the term 'Cruise control'. Give examples to explore the term.　4

8. a) Apply Cost Benefit Analysis Method (CBAM) while designing online Railway Reservation system.　7
   b) Write short notes on :　7
      i)　Life cycle of software Architecture
      ii)　Process control
      iii)　Automated support of Architecture Design

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