Eighth Semester B.E. Degree Examination, June/July 2015

Software Architectures

Time: 3 hrs.   Max. Marks:100

**Note: Answer any FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

1   a.   Define software architecture with the help of neat block diagram of ABC (Architecture
         Business Cycle). Explain in detail the different activities which are involved in creating a
         software architecture?   **(12 Marks)**
    b.   Write short notes on:
         i)   Architectural patterns
         ii)   Reference model
         iii) Reference architectures.   **(08 Marks)**

2   a.   Explain in detail about pipes and filters architectural style with types (invariants),
         advantages and disadvantages.   **(10 Marks)**
    b.   Explain in brief about KWIC (Keyword in Context) problem with abstract data types and
         implicit invocation styles to implement solutions.   **(10 Marks)**

3   a.   What are the qualities of system? Explain modifiability general scenario?   **(10 Marks)**
    b.   What do you mean by tactics? Explain the availability tactics with a neat diagram.
                                                                              (10 Marks)

4   a.   Briefly explain pipes and filters architectural pattern benefits.   **(06 Marks)**
    b.   Define Blackboard architectural pattern. Briefly explain the steps used to implement the
         blackboard pattern.   **(08 Marks)**
    c.   Write a note on ARKADSAY-II system.   **(06 Marks)**

PART – B

5   a.   Define Broker architectural pattern. Explain types of participating components which
         Comprises it.   **(10 Marks)**
    b.   Explain with neat diagram, the dynamic scenarios of model view controller (MVC)?
                                                                              (10 Marks)

6   a.   What are the steps involved in implementing microkernel systems?   **(12 Marks)**
    b.   What are the benefits and liabilities of reflection architectural patterns?   **(08 Marks)**

7   a.   Discuss 5 steps in implementing Master-slave pattern.   **(10 Marks)**
    b.   Discuss briefly implementation of whole-part-structure.   **(08 Marks)**
    c.   Mention benefits of proxy design pattern.   **(02 Marks)**

8   a.   Explain with neat diagram evolutionary delivery life cycle model.   **(08 Marks)**
    b.   What are the required standard organization points for interface documentation? **(12 Marks)**