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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

- 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)

- 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.

(08 Marks)

- b. Define Blackboard architectural pattern. Briefly explain the steps used to implement the blackboard pattern. (08 Marks)
- c. Write a note on HEARSAY-II system.

(04 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 system? (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.
 c. Mention benefits of proxy design pattern.
 (08 Marks)
 (02 Marks)
- 8 a. Explain with neat diagram evolutionary delivery life cycle model. (08 Marks)
 - b. What are the suggested standard organization points for interface documentation? (12 Marks)