10IS81

Eighth Semester B.E. Degree Examination, Jan./Feb. 2023
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 different activities which are involved in creating a software architecture. **(10 Marks)**
  b. Write a note on structure recommendation, process recommendation. **(10 Marks)**

2 a. Explain in brief about KWIC (Keyword In Context) problem with abstract datatypes and implicit invocation styles to implement. **(10 Marks)**
  b. Explain in detail about blackboard architectural style with its advantages and disadvantages. **(10 Marks)**

3 a. Explain availability tactics with Fault detection, Fault prevention and Fault recovery method. **(10 Marks)**
  b. Classify the Security tactics. What are the different tactics for resisting attacks? **(10 Marks)**

4 a. Explain in detail about layered architecture pattern. Write its advantages and disadvantages. **(10 Marks)**
  b. Explain in detail about Blackboard Architectural Pattern with its various participating components. **(10 Marks)**

PART – B

5 a. Define Broker architecture pattern. Explain types of participating components which comprises it. **(10 Marks)**
  b. Explain with neat diagram, the Dynamic Scenarios of Model View Controller. **(10 Marks)**

6 a. What are the steps in implementing microkernel pattern? **(10 Marks)**
  b. Bring about reflection pattern. Write its liabilities. **(10 Marks)**

7 a. Briefly explain the benefits of Master Slave pattern. **(10 Marks)**
  b. Explain the variants of whole part pattern design. **(10 Marks)**

8 a. Explain in detail the different steps performed while designing an architecture using the ADD method. **(10 Marks)**
  b. Write a short note on:
     i) Forming the team structure
     ii) Documenting the view. **(10 Marks)**

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