CBCS SCHEME

USN ☐☐☐☐☐☐☐☐☐☐ **18MCA553**

Fifth Semester MCA Degree Examination, Feb./Mar. 2022
Software Architecture

Time: 3 hrs. Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. Define software Architecture. Explain different categories of structures. **(10 Marks)**
 b. Why software architecture is important from a wide variety of technical and non-technical reasons. **(10 Marks)**

OR

2 a. Discuss different architectural context. **(10 Marks)**
 b. Explain different stakeholders for a system. **(10 Marks)**

Module-2

3 a. Explain general scenario of the availability quality attribute. **(10 Marks)**
 b. Explain interoperability general scenario and tactics. **(10 Marks)**

OR

4 a. Explain the tactics for the quality attribute performance. **(10 Marks)**
 b. Explain usability general scenario and tactics. **(10 Marks)**

Module-3

5 a. With a neat diagram, explain queuing model of performance for MVC. (Model View Controller). **(10 Marks)**
 b. Explain gathering ASR's by interviewing stakeholders and by understanding the business goals. **(10 Marks)**

OR

6 a. Discuss about quality attribute checklist, thought experiments and buck-of the envelop analysis and experiments, simulation and prototypes. **(10 Marks)**
 b. Explain the steps involved in Quality Attribute Workshop (QAW). **(10 Marks)**

Module-4

7 a. Explain the steps of Attribute Driven Design method (ADD) **(10 Marks)**
 b. Explain the template used for documenting view. **(10 Marks)**

OR

8 a. Explain generate and test process of architecture design with a diagram. **(10 Marks)**
 b. Explain the notations available for documenting the behavior. **(10 Marks)**

Module-5

9 a. Define layers pattern. Discuss the example, structure and consequences of layers pattern. **(10 Marks)**
 b. Define broker pattern. Discuss the example, context, problem and solution of broker pattern. **(10 Marks)**

OR

10 a. Define pipes and filter pattern. Discuss the solution and structure of pipes and filter pattern. **(10 Marks)**
 b. Define blackboard pattern. Discuss the solution, structure and liabilities of blackboard pattern. **(10 Marks)**

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