## USN

## Eighth Semester B.E. Degree Examination, Aug./Sept.2020 Software Architecture

Time: 3 hrs.

Max. Marks:100

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

## PART - A

| 1 | a. | Why software architecture is important?                                 | (04 Marks) |
|---|----|-------------------------------------------------------------------------|------------|
|   | b. | Define Software Process. Explain its activities.                        | (08 Marks) |
|   | c. | Explain module and allocation structures.                               | (08 Marks) |
|   |    |                                                                         |            |
| 2 | a. | Explain the control loop solution for mobile robot.                     | (06 Marks) |
|   | b. | Explain KWIC with implicit invocation scheme.                           | (06 Marks) |
|   | c. | Define the following with an example:                                   |            |
|   |    | (i) Set point (ii) Controlled variable                                  |            |
|   |    | (iii) Feed control system (iv) Feed forward control system.             | (08 Marks) |
|   |    |                                                                         |            |
| 3 | a. | What is availability? Explain the general scenario for availability.    | (08 Marks) |
|   | b. | Explain Business Qualities.                                             | (06 Marks) |
|   | c. | Explain Usability Tactics.                                              | (06 Marks) |
|   |    |                                                                         |            |
| 4 | a. | What are the CRC's of a blackboard pattern?                             | (06 Marks) |
|   | b. | Explain the scenarios of pipes and fillers pattern.                     | (08 Marks) |
|   | c. | Explain any six implementation steps of layer pattern.                  | (06 Marks) |
|   |    |                                                                         |            |
|   |    | PART – B                                                                |            |
| 5 | a. | Explain the benefits and liabilities of broker pattern.                 | (07 Marks) |
|   | b. |                                                                         | (08 Marks) |
|   | c. | (WHI)                                                                   | (05 Marks) |
|   | -  | Explain any 5 implementation steps of PAC pattern.  RANGALORE - 560 037 | (          |
| 6 | a. | What are the known uses of reflection pattern?                          | (05 Marks) |
|   | b. | What are the steps involved in implementing microkernel pattern.        | (10 Marks) |
|   | c. | Explain Reflection pattern with its content, problem and solution.      | (05 Marks) |
|   |    |                                                                         | ` ,        |
| 7 | a. | List and explain the steps to implement a whole-part structure.         | (10 Marks) |
|   | b. | What are the benefits and liability of proxy structure?                 | (05 Marks) |
|   | c. | Explain the steps to implement Master Slave structure.                  | (05 Marks) |
|   |    |                                                                         |            |
| 8 | a. | Explain the steps involved in designing an architecture using ADD.      | (10 Marks) |
|   | b. | Explain the parts of a document view.                                   | (10 Marks) |
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