16/17MCA34

# Third Semester MCA Degree Examination, Dec.2018/Jan.2019 Software Engineering

Time: 3 hrs. Max. Marks: 80

Note: Answer FIVE full questions, choosing one full question from each module.

## Module-1

- a. Describe software engineering code of ethics and professional practices as defined by IEEE/ACM. (08 Marks)
  - b. Why software engineering is important? Explain the attributes of good software. (08 Marks)

### OR

- 2 a. Explain the phases in Rational Unified Process. (08 Marks)
  - b. List and explain the Extreme Programming practices. (08 Marks)

## Module-2

- 3 a. Explain the terms "user-requirements" and "system requirements". List different readers of user requirements and system requirements. (08 Marks)
  - b. With a neat diagram, explain the different types of activities that are performed in the requirement engineering process. (08 Marks)

## OR

- 4 a. Explain the CBSE process with a neat diagram. (08 Marks)
  - b. With a neat diagram, explain the different types of non-functional requirements. (08 Marks)

## Module-3

- 5 a. What is meant by system model? With an ATM model explain the context model. (08 Marks)
  - b. Explain the role of software architecture. (08 Marks)

#### OF

- 6 a. Explain Architectural styles for C and C view. (08 Marks)
  - b. Explain state machine models with an example. (08 Marks)

## Module-4

- 7 a. Explain function oriented design. (08 Marks)
  - b. Write a note on cohesion and coupling. (08 Marks)

#### OR

- 8 a. Briefly explain the architectural patterns for distributed systems. (08 Marks)
  - b. Discuss the complexity matrix for function oriented design. (04 Marks)
  - c. Write a note on Software as Service. (04 Marks)

## Module-5

- 9 a. Explain project schedule and staffing. (08 Marks)
  - b. Explain the activities of software configuration management plan. (08 Marks)

#### OR

- 10 a. Describe in details the process of testing. (08 Marks)
  - b. Mention the differences between white box testing and block box testing. (08 Marks)

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

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