**QP CODE: 24800327**

24800327

**Reg No** : .....

**Name** : .....

# M.C.A. DEGREE EXAMINATION, JANUARY 2024

## First Semester

Faculty of Technology & Applied Science

Master of Computer Application

## CORE - MCACT104 - SOFTWARE ENGINEERING AND OBJECT ORIENTED MODELING

2020 Admission Onwards

5D68B9C5

Time: 3 Hours Maximum: 75 Marks

### Part A

*Answer any **ten** questions*

*Each question carries **3** marks*

1. What is a Software? Why software is important?
2. Write brief notes on Waterfall Model.
3. Explain the advantages of Spiral model.
4. Explain feasibility study.
5. Construct a DFD for a hospital with a set of patients and a set of medical doctors. Associate with each patient a log of the various tests and examinations conducted.
6. Explain SRS and its organization.
7. What are the steps in software design?
8. What is a hybrid approach in software design
9. Briefly explain the term performance testing.
10. Explain system testing.
11. Draw and explain a use case diagram.
12. Mention the elements of activity diagram.

(10×3=30 marks)

## Part B

*Answer **all** questions*

*Each question carries **9** marks*

13. a) Define software process. Illustrate the framework of software process with a neat sketch.

**OR**

b) Explain the Extreme Programming approaches in agile methods.

14. a) Brief the IEEE standard format for SRS.

**OR**

b) Explain various steps in requirement analysis.

15. a) Explain Activity diagram in detail with example.

**OR**

b) Expalin class diagram.

16. a) Compare black-box and white-box testing with sufficient explanation.

**OR**

b) Discuss methods of testing real-time systems.

17. a) Explain with an example, how use case modeling is used to describe a functional requirements.Explain with an example.

**OR**

b) Illustrate with example, the relationship between system sequence diagram and use case diagram.

(5×9=45 marks)