K21P 0422

Reg. No. : .....

Name : .....

IV Semester M.C.A./M.C.A. (Lateral Entry) Degree (C.B.S.S. – Reg./Supple. (Including Mercy Chance)/Imp.) Examination, May 2021
(2014 Admission Onwards)
MCA4C20 : SOFTWARE ENGINEERING

Time : 3 Hours Max. Marks : 80

SECTION – A

Answer **any ten** questions. **Each** question carries **three** marks : **(10×3=30)**

1. Distinguish between process and methods.
2. Give the importance of software engineering.
3. Define software process. State the important features of a process.
4. Write any two characteristics of software as a product.
5. What are the characteristics of SRS ?
6. What is data modeling ?
7. Draw the structure of case repository and explain.
8. How to distinguish static and dynamic testing technologies ?
9. How do you estimate time required for a software development project ?
10. What are the roles of testing tools ?
11. What are the roles of cyclometric complexity value in software testing ?
12. Mention the merits of performance and security testing.

P.T.O.

SECTION – B

Answer **all** questions. **Each** question carries **ten** marks : **(5×10=50)**

13. a) Discuss the generic activities involved in the requirement engineering process. **10**

OR

b) i) Describe the basic principles of agile development methods. **5**

ii) How does a framework activity change as the nature of the project changes ? **5**

14. a) What are the risks associated with software projects ? How do project manager manages such risks. **10**

OR

b) i) Write a note on W5 HH principle. **5**

ii) Elaborate on the series of tasks in a software confirmation management process. **5**

15. a) i) What is Software Quality Management ? Discuss its principles. **5**

ii) Explain rapid prototyping as a requirement analysis technique. What are the methods and tools available for prototyping ? **5**

OR

b) Explain requirements engineering activities. In which requirements engineering activity you will consider stakeholders. **10**

16. a) With an example, describe the three process steps for transforming a dataflow diagram to a structure chart. **10**

OR

b) Develop the design of the weather station to show the interaction between the data collection subsystem and the instruments that collect weather data. Use sequence diagrams to show this interaction. **10**

17. a) Differentiate between black box testing and white box testing. Explain in detail about any one testing tool. **10**

OR

b) What do you mean by system testing ? Explain the strategies of system testing along with the example. **10**
