

**MCA**  
**(SEM 5) THEORY EXAMINATION 2017-18**  
**Software Engineering**

Time: 3 Hours

Total Marks: 100

Note: Attempt all sections as indicated

**SECTION –A**

Q1. Attempt all parts.

(2×10=20)

- a) Define the term Software and its characteristics?
- b) What is SRS?
- c) Explain the term Software Design?
- d) What is Software Quality Framework?
- e) Give the difference between Functional Oriented design and Object Oriented Design?
- f) Define the term Test Drivers and Test Stubs?
- g) Define ER diagram?
- h) What do you mean by system analyst?
- i) Give the formulae of Cost and Effort?
- j) What do you mean by Functional Point Analysis?

**SECTION –B**

Q2. Attempt any five of the following.

(5×10=50)

- a) Explain spiral model with the help of diagram? Also explain its advantages and disadvantages?
- b) What do you mean by COCOMO models? How it is differ from waterfall model?
- c) Describe various phases SDLC? Which phase is important discuss?
- d) What are the fundamental principles of Software Development? Explain what you would do to incorporate these principles into a Software Development Process?
- e) Explain process modelling and data modelling? Why do some software analysts believe that data modelling is the most important aspect of business requirement modelling?
- f) What do you understand by DFD and its symbol with example?
- g) Define the term Walkthrough, Code Inspection?
- h) Explain structured approach to software design? Also discuss data dictionary and data validation?

**SECTION –C**

Attempt any two of the following.

(2×15=30)

- Q3. Explain Software Quality Assurance? What are the different quality assurance parameters? Explain Alpha and Beta testing products?
- Q4 .What do you mean by Software Risk Analysis Management Process? Also explain the various types of Maintenance?
- Q5. What do you meant by Testing? Explain the various types of testing with the help of diagram in detailed.