MCA–17

Software Engineering

Master of Computer Application

(MCA-11/16/17)

Fifth Semester, Examination, 2018

Time : 3 Hours   **Max. Marks : 80**

Note : This paper is of **eighty (80)** marks containing **three (03)** sections A, B and C. Learners are required to attempt the questions contained in these sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section 'A' contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. What are the purposes of Data Flow diagrams and Entity-Relationship diagrams ? Give an example diagram of each.

2. What is the difference between SRS document and design document ? What are the contents we should contain in the SRS document and design document ?

3. Explain all the phases involved in the implementation phase.

4.   Write short notes on any *two* of the following :

   (a)   Cardinality

   (b)   Generalization

   (c)   Elicitation

   (d)   Elaboration

Section–B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (8) marks each. Learners are required to answer *four* (04) questions only.

1.   Write out the reasons for the failure of Waterfall Model.

2.   What are the umbrella activities of a software process ?

3.   What does Validation represent ?

4.   What is system engineering ?

5.   What is the difference between the "Known Risks" and Predictable Risks" ?

6.   What are the objectives of Requirement Analysis ?

7.   What are the various elements of data design ?

8.   What are the types of software maintenance ?

Section–C

(Objective Type Questions)

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

Find the most appropriate option in the following :

1.   Which of the following is a phase of RAD model ?

   (a)   Business modelling

(b) Data modelling

(c) Application generation

(d) All of the above

2. The UML Designation for a public class member is :

(a) The symbol @

(b) The symbol #

(c) The minus symbol (–)

(d) The plus symbol (+)

3. A cross life-cycle activity of system development is :

(a) Data modelling

(b) Fact finding

(c)   Prototyping

(d) Data Flow Diagram modelling

4. The term module in the design phase refers to :

(a) Functions

(b) Procedures

(c) Subprograms

(d) All of the above

(e) None of these

5. The objective of testing is :

(a) Debugging

(b) To uncover errors

(c) To gain modularity

(d) To analyze system

(e) None of these

6. The largest percentage of total life cycle cost of software is :
    (a) Design Cost
    (b) Maintenance Cost
    (c) Coding Cost
    (d) Testing Cost

7. A decision table consist of two parts :
    (a) Sub and entry
    (b) Pros and cons
    (c) Condition and result
    (d) None of the above

8. Coding and testing can be done in :
    (a) Top-down manner
    (b) Bottom-up manner
    (c) Adhoc maimer
    (d) Gross-sectional manner

9. In which phase procedure development occurs ?
    (a) Structured design phase
    (b) Conversion phase
    (c) System building phase
    (d) Maintenance

10. The black box concepts :
    (a) Is invoked by describing a systems in terms of inputs and outputs, easing the transformation process a black box
    (b) Assumes that black box is independent
    (c) Assumes that inputs and output will remain stable
    (d) None of the above