Roll No. …………………..

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. 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. Describe the importance of software engineering in detail. What should be the steps taken under the process of developing a software system ?

2. Describe waterfall model in detail.

3. Describe the components and quality which is necessary for the documents of software specifications.

4. Write short notes on the following :

    (a) Fault Tolerance

    (b) Stress Testing

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. What is the importance of data flow diagram ?
2. Explain the term configuration management.
3. What are the differences between verification and validation in software development ?
4. What do you mean by Software Reliability ?
5. Define blue print methodology.
6. What do you mean by quality parameters which are used in software system ?
7. Differentiate between black box and white box testing.
8. What do you mean by reverse engineering ?

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.

1. Which one of the following is not a software process quality ?
   (a) Productivity
   (b) Portability
   (c) Timeliness
   (d) Visibility

2. Which one of the following does not fall into the category of types of changes encountered during the support phase ?
   (a) Translation

(b) Correction

(c) Adaptation

(d) Prevention

3. Efficiency in a software product does not include ....

(a) Responsiveness

(b) Licensing

(c) Memory utilization

(d) Processing time

4. The reason for software bugs and failure is due to :

(a) Software Companies

(b) Software Developers

(c) Both Software Companies and Developers

(d) All of the mentioned

5. Which of these does not affect different types of software as a whole ?

(a) Heterogeneity

(b) Flexibility

(c) Business and Social Change

(d) Security

6. RAD stands for :

(a) Relative Application Development

(b) Rapid Application Development

(c) Rapid Application Document

(d) None of the mentioned

7. Which is not one of the types of prototype of prototyping model ?

   (a) Horizontal Prototype

   (b) Vertical Prototype

   (c) Diagonal Prototype

   (d) Domain Prototype

8. The fundamental notions of software engineering does not account for :

   (a) Software Processes

   (b) Software Security

   (c) Software Reuse

   (d) Software Validation

9. SDLC stands for :

   (a) System Development Life Cycle

   (b) Software Development Life Cycle

   (c) Software Design Life Cycle

   (d) System Design Life Cycle

10. Which model can be selected if user is involved in all the phases of SDLC ?

   (a) Waterfall Model

   (b) Prototyping Model

   (c) RAD Model

   (d) Both Prototyping and RAD Model