

Roll No.

MCA–17

Software Engineering

Master of Computer Application

(MCA–16/MCA–11)

Fifth Semester, Examination, 2017

Time : 3 Hours

Max. Marks : 60

Note : This paper is of **sixty (60)** marks containing **three (03)** sections A, B, 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 fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. (a) Describe waterfall model in detail.
(b) Distinguish verification with validation.
2. What do mean by Project Management ? Discuss in detail.
3. (a) Describe various aspects of Software Maintenance.
(b) What are the categories of software risks ?

4. Write short notes on any *two* of the following :
- (a) Decision Tree
 - (b) Verification vs. Validation
 - (c) Software Reverse Engineering
 - (d) Modularization

Section–B

(Short Answer Type Questions)

Note : Section ‘B’ contains eight (08) short answer type questions of five (05) marks each. Learners are required to answer *four* (04) questions only.

1. What is the principal aim of the software engineering discipline ?
2. What is a Flow Chart ? How is the flow charting technique useful during software development ?
3. What are the major advantages of first constructing a working prototype before developing the actual product ?
4. List the major responsibilities of a software designer.
5. What are the different categories of software development projects according to the estimation model ?
6. What is the need of requirement analysis phase ?
7. How can we characterize a good software design ?
8. What are the main advantages of using an object oriented approach to software design over a function oriented approach ?

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.

Choose the correct answer from the given choices :

1. Which of the following is not a desirable characteristic of SRS document ?
 - (a) Concise
 - (b) Ambiguous
 - (c) Traceable
 - (d) Verifiable
2. Design phase is followed by :
 - (a) Coding
 - (b) Testing
 - (c) Maintenance
 - (d) None of these
3. Grouping of all functionality related elements is known as :
 - (a) Cohesion
 - (b) Coupling
 - (c) Both (a) and (b)
 - (d) None of these
4. Project risk factor is considered in which model ?
 - (a) Spiral
 - (b) Waterfall
 - (c) Prototyping
 - (d) None of the above
5. Measurements can be categorized in two-ways what are these two-ways ?
 - (a) Direct and Indirect
 - (b) Front and Rear
 - (c) Metric
 - (d) Quality and Reliability

6. Alpha testing is done at :
 - (a) Developer's end
 - (b) User's end
 - (d) Both (a) and (b)
 - (c) None of these
7. Which one of the following is not a phase of Prototyping Model ?
 - (a) Quick design
 - (b) Coding
 - (c) Prototype refinement
 - (d) Engineer product
8. Which tool is use for structured designing ?
 - (a) Program flowchart
 - (b) Structure chart
 - (c) Dataflow diagram
 - (d) Module
9. The importance of software design can be summarized in a single word which is :
 - (a) Efficiency
 - (b) Accuracy
 - (c) Quality
 - (d) Complexity
10. Cohesion is a qualitative indication of the degree to which a module :
 - (a) can be written more compactly
 - (b) focuses on just one thing
 - (c) is able to complete its function in a timely manner
 - (d) is connected to other modules and the outside world