

Printed Pages: 02

Subject Code: RCA502

Paper Id:

214502

Roll No:

--	--	--	--	--	--	--	--	--	--

MCA
(SEM V) THEORY EXAMINATION 2018-19
SOFTWARE ENGINEERING

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.
2. Any special paper specific instruction.

SECTION A

1. **Attempt *all* questions in brief.** **2 x 7 = 14**
- a. Define various software characteristics.
 - b. Compare Data Flow and E-R diagram.
 - c. State SQA.
 - d. Write the advantage and disadvantage of function point measurement.
 - e. What are the two main activities of regression testing?
 - f. Write any two reasons to increase in the software development cost?
 - g. List advantages of Reverse Engineering?

SECTION B

2. **Attempt any *three* of the following:** **7 x 3 = 21**
- a. What is Software development life cycle? Discuss the generic waterfall model.
 - b. What is a flow chart? How is the flow charting techniques useful for software development?
 - c. What is bottom up design? Discuss its benefits and limitations.
 - d. Define software testing. Explain various level of testing
 - e. What are the benefits of using CASE tools? Explain in detail.

SECTION C

3. **Attempt any *one* part of the following:** **7 x 1 = 7**
- (a) Define the term “Software Engineering”. Explain the major differences between software engineering and other traditional engineering disciplines.
 - (b) Discuss different components of the Software Engineering involved in the development process.
4. **Attempt any *one* part of the following:** **7 x 1 = 7**
- (a) What do you understand with the term “requirement elicitation”? Discuss any two techniques.
 - (b) Compare ISO and SEI-CMM model.
5. **Attempt any *one* part of the following:** **7 x 1 = 7**
- (a) Write a note on Halstead's Software Science.
 - (b) What is SRS document and Cyclomatic complexity?

6. Attempt any *one* part of the following:

7 x 1 = 7

- (a) Differentiate between validation and verification. Describe Alpha and Beta testing along with their advantages and disadvantages.
- (b) What is a formal technical review? What are the objectives of formal technical reviews? Give a comparative study of code inspection, reviews and walk-through.

7. Attempt any *one* part of the following:

7 x 1 = 7

- (a) Using a schematic diagram and suitable example show the order in which the following are estimated in the COCOMO estimation technique:
cost, effort, duration, size.
- (b) What do you mean by risk management? Explain how to select the best risk reduction technique when there are many ways of reducing a risk.