Paper Id: | 214502 | **Roll No:** | | | | | | | | | | | |

MCA
(SEM V) THEORY EXAMINATION 2019-20
SOFTWARE ENGINEERING

Time: 3 Hours   *Total Marks: 70*

Note: 1. Attempt all Sections. If you require any missing data, choose suitably.

SECTION A

1.   **Attempt *all* questions in brief.**   **2 x 7 = 14**

   a.   Discuss the any two reasons for increase in development cost.
   b.   Discuss the role of system analyst in development of project.
   c.   Define Function Requirement.
   d.   What does data flow diagram level 0 represent?
   e.   Define software design.
   f.   Name two configuration items.
   g.   Discuss two fundamental source of change.

SECTION B

2.   **Attempt any *three* of the following:**   **7 x 3 = 21**

   a.   What is software? Explain characteristics of software.
   b.   Draw Context level and Level-1 DFD for Attendance Monitoring System.
   c.   What is software design? Describe levels of software design.
   d.   Write a short note on Formal Technical Review and Code Inspection and compare them.
   e.   State Baseline. Discuss the process of modification of base line.

SECTION C

3.   **Attempt any *one* part of the following:**   **7 x 1 = 7**

   (a)   Differentiate between software engineering and traditional engineering.
   (b)   Discuss the Waterfall Model with advantages and disadvantages.

4.   **Attempt any *one* part of the following:**   **7 x 1 = 7**

   (a)   Discuss the role of feasibility study in development of project. Explain any two types of feasibility study.
   (b)   Explain the CMM with the help of diagram. Differentiate between ISO and CMM.

5.   **Attempt any *one* part of the following:**   **7 x 1 = 7**

   (a)   What do you mean by function oriented design? Discuss the advantages of modular system.
   (b)   Explain various types of coupling with the help of an example.

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6.   **Attempt any *one* part of the following:**   **7 x 1 = 7**

     (a)   What is cyclomatic complexity? Calculate the cyclomatic complexity of the following code:

```
largest()
{ int fn, sn, tn;
        if(fn > sn) then
                if(fn > tn) then
                        print fn +"is largest"
                else
                        print tn + "is largest"
                endif
        else if (sn > tn)
                        print sn +"is largest"
        else
                        print tn + "is largest"
        endif
```

     (b)   What is integration testing? Explain different types of integration testing.

7.   **Attempt any *one* part of the following:**   **7 x 1 = 7**

     (a)   What do you mean by Change Control? Explain the process of change control with the help of diagram.

     (b)   Discuss the various activities of Risk Assessment.