(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 2145 Roll No. | | | | | | | | | | |

# MCA

## (SEM. V) ODD SEMESTER THEORY EXAMINATION 2013-14

## SOFTWARE ENGINEERING

*Time : 3 Hours* *Total Marks : 100*

**Note :–** Attempt **all** questions.

1. Attempt any **two** parts of the following : **(10×2=20)**

   (a) Define the term Software Engineering. Also discuss the generic waterfall model in detail.

   (b) Discuss the following in brief :

   (i) Software characteristics

   (ii) Difference between module and software component.

   (c) Explain the spiral life cycle model with its merits and demerits.

2. Attempt any **two** parts of the following : **(10×2=20)**

   (a) Discuss the significance of requirement engineering. Also write the various steps of requirement engineering with proper explanation.

(b) (i) What is Software Quality ? Write the various attributes of software quality.

(ii) Discuss the merits of SEI-CMM based quality assessment.

(c) Write short notes on :

(i) Data Dictionary

(ii) Data Flow Diagram.

3. Attempt any **two** parts of the following : **(10×2=20)**

(a) What do you understand by terms cohesion and coupling in the respect of software design ? Discuss in detail.

(b) Write a note on Halstead's Software Science.

(c) What are the advantages of using an object oriented design over a function oriented design ? Discuss.

4. Attempt any **two** parts of the following : **(10×2=20)**

(a) (i) What is Software Testing ? Discuss the objectives of it.

(ii) Write the difference between black-box testing and white-box testing.

(b) What is Coding Standard ? Also discuss the different types of code reviews with examples.



(c) Explain the following :

(i) Unit testing

(ii) Acceptance testing

(iii) Regression testing

(iv) Alpha and Beta testing.

5. Write short notes on any **two** : **(10×2=20)**

(a) Software Configuration Management

(b) Constructive Cost Models (COCOMO)

(c) Software Re-Engineering and Software Reverse Engineering.