3rd Semester,

Examination–2014

MSc(IT)-10 (Master of Science in Information Technology)

MIT-3005

Information to Software Engineering Concepts

Time : 3 Hours   **Maximum Marks :** 60

Note : The question paper is divided into three sections A, B and C. Give the answer according to the directions given in each section.

Section-A

(Long Answer Type Questions)

Note : Answer any two questions. Each question carries 15 Marks.

(2×15=30)

1. Discuss the prototype model. What are the advantages of developing the prototype of a system ?

2. Compare the Waterfall and Spiral Model of software development.

3. What is software development life cycle ? Explain.

4. What is software maintenance ? Explain maintenance phase.

Section-B

(Short Answer Type Questions)

Note : Answer any four questions. Each question carries 5 Marks.

$$(4 \times 5 = 20)$$

1. What are the components of software ? How it is differ from a program ?

2. What are important processes of requirement engineering?

3. What do you mean by the development phase ?

4. Explain the concept of structured coding? $\neq$

5. Discuss the objectives of modular software design ?

6. What is difference between Development and Regression testing ?

7. Explain the importance of maintenance in Software Engineering ?

8. Write short note on "Software Engineering education".

Section-C

Objective Type Questions (Compulsory)

Note : Answer all questions. Each question carries 1 Mark.

$$(10 \times 1 = 5)$$

1. Waterfall model is not suitable for :
   (a) Small Projects   (b) Accommodating change
   (c) Complex projects   (d) None of the above

2. SRS documents is for :
   (a) "What" of a system
   (b) How to desing the system ?
   (c) Costing and scheduling of a system
   (d) System requirement a system

3. Level-0 DFD is similar to:
   (a) Use-case diagram
   (b) Context diagram
   (c) System diagram
   (d) None of the above

4. COCOMO-II estimation model is based on :
   (a) Complex approach
   (b) Algorithmic approach
   (c) Bottom-up approach
   (d) Top-down approach

5. The relationship of data elements in a module is called :
   (a) Coupling   (b) Cohesion
   (c) Modularity   (d) None of the above

6. Which one is the international standard for size measure ?
   (a) LOC   (b) Function count
   (c) Program length (d) None of the above

7. Reliability of software is usually estimated at :

    (a)   Analysis Phase   (b)   Design Phase

    (c)   Coding Phase   (d)   Testing Phase

8. Which level of CMM is for process control ?

    (a)   Initial   (b)   Repeatable

    (c)   Defined   (d)   Managed

9. Testing the software is basically :

    (a)   Verification

    (b)   Validation

    (c)   Verification and Validation

    (d)   None of the above

10. Which one is not a category of maintenance ?

    (a)   Corrective maintenance

    (b)   Adaptive maintenance

    (c)   Perfective maintenance

    (d)   Preventive maintenance