2013

MCA

5th SEMESTER EXAMINATION

SOFTWARE ENGINEERING

PAPER—502

Full Marks : 100

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. *8* and any *four* from the rest.

1. (a) What do you understand by the expression 'Life cycle model of Software development' ? Why is it important to adhere to a life cycle model during the development of a large software product.   2+3

   (b) What do you mean by a software process ? How does methodology differ from a process ?   2+2

   (c) Discuss the important activities that are carried out during the feasibility study phase.   5

2. (a) What is a prototype ? Under what circumstances is it beneficial to construct a prototype ?   2+2

   (b) With the help of suitable diagram, explain the prototyping model of software development.   10

3. (a) As an analyst of a large software development project. discuss the aspects of the software product you would include in the SRS document? What would be the organization of your SRS documents? 5+5

(b) List the five desirable characteristics of a good SRS documents. 4

4. (a) What do you mean by the terms cohesion and coupling in the context of software design. Is it true that in a good design, the modulus should have high cohesion and low coupling? 3+5

(b) What do you understand by a layered software design ? What are the advantages of a layered design ? 3+3

5. (a) What do you understand by the term System testing ? Mention the different kinds of system testing that are usually performed on large software products. 2+6

(b) Differentiate between software verification and validation. When during the software life cycle verification and validation are performed? 4+2

6. (a) What do you mean by the term Risk and Risk Management? 2+2

(b) Mention the different activities that are performed in Risk Management. 6

(c) Why is it necessary to manage risk? 4

7. Write short notes on (any two) : 7×2

(i) Black box and White box testing ;

(ii) Software Configuration Management ;

(iii) Basic COCOMO model ;

(iv) Software Project Management Plan.

[*Internal Assessment*] 30