[Total No. of Questions - 9] [Total No. of Printed Pages - 2] (2125)

15156

B. Tech 5th Semester Examination

Software Engineering (OS)

IT(ID)-5001

Time : 3 Hours **Max. Marks : 100**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, by selecting at least one question from Sections A, B, C and D. Question no. 9 of Section E is compulsory. All questions carry equal marks.

SECTION - A

1. (a) Write in detail the organisation of SRS. (10)

   (b) Explain the working of prototype life cycle model. (10)

2. (a) What is data dictionary? Also, write its advantages and disadvantages. (10)

   (b) What are the issues in design of large software? How they can be handled with software Engineering? (10)

SECTION - B

3. (a) Give one example to illustrate how metric data can be analyzed for assessment. (10)

   (b) Write all the typical software risks. (10)

4. (a) Draw and explain basic information flow model. (10)

   (b) What is putnam resource allocation model? Also, write its usefulness. (10)

[P.T.O.]

SECTION - C

5. Explain all types of white box testing techniques. (20)

6. (a) Differentiate between verification and validation with one example. (10)

   (b) What is cyclomatic complexity? Also, write its advantages and disadvantages. (10)

SECTION - D

7. (a) Describe quick fix model for software maintenance. (10)

   (b) What are the problems during maintenance? How they can be solved? (10)

8. (a) Describe statistical software quality assurance in detail. (10)

   (b) What is software reliability? List all the measures of reliability. (10)

SECTION - E

9. (a) Define structured analysis.

   (b) Give brief overview of software development process.

   (c) Write a short note on nature of SRS.

   (d) What is risk identification?

   (e) Where static multivariable model can be useful?

   (f) List advantages of FP over LOC metric.

   (g) What is regression testing?

   (h) What is the role of test case design?

   (i) Define ripple effect.

   (j) What do you understand by defect amplification? (10×2=20)