Reg. No. : | | | | | | | | | | |

**R 3259**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

Fourth Semester

Information Technology

CS 1353 — SOFTWARE ENGINEERING

(Regulation 2004)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Which process model leads to software reuse? Why?

2. What is the difference between verification and validation?

3. Specify at least four questionnaire which supports to select the prototyping approach.

4. What are all the informations in data dictionary?

5. Why modularity is important in software projects?

6. Differentiate version control and change control.

7. Which is called as glass box testing? What is the objective of this?

8. List out the data structure errors identified during unit testing.

9. Differentiate measure, metric and indicators.

10. How to measure the function point FP?

PART B — (5 × 16 = 80 marks)

11. (a) (i) What is meant by generic view of software engineering? Brief it. (8)

(ii) Explain the process model which is useful when staffing is unavailable for complete implementation. (8)

Or

(b) (i) What is the difference between system and computer based system? Explain the system engineering hierarchy with diagram. (8)

(ii) What is prototyping? Mention its types. Also explain this model with advantages and disadvantages. (8)

12. (a) (i) Differentiate functional and nonfunctional requirements and explain. (8)

(ii) Why the customer interaction is a difficult process? Explain one formal procedure used for customer interaction. (8)

Or

(b) (i) Draw an E-R diagram for university information system. Specify at least four cardinality and modality relationships in this. (8)

(ii) Explain the relationship between data and control models with diagram. (8)

13. (a) (i) Which is a measure of interconnection among modules in a program structure? Explain. (8)

(ii) What is the difference between Level-0 and Level-1 DFD? Draw a Level-0 and Level-1 DFD for Safe Home security system. (8)

Or

(b) (i) How the interrupts are handled in real time systems? Explain. (8)

(ii) How to identify the objects in the software configuration? Explain in detail. (8)

14. (a) (i) How to derive test cases for the given project? Explain with detail. (8)

(ii) How the RST (Reflexive, Symmetric, and Transitivity) condition is verified in black box testing? Explain with example. (8)

Or

(b) (i) Why unit testing is so important? Explain the concept of unit testing in detail. (8)

(ii) Write a note on regression testing. (8)

15. (a) (i) How to compute a task set selector value for a project? Explain with suitable illustration. (8)

(ii) How to track the schedule for the project? Explain in detail. (8)

Or

(b) (i) Describe about software equation. (8)

(ii) Describe about the constructive cost model in detail. (8)

---