

C 3159

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Sixth Semester

(Regulation 2004)

Computer Science and Engineering

CS 1353 — SOFTWARE ENGINEERING

(Common to B.E. (Part-Time) Fifth Semester Regulation - 2005)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Give at least two reasons for prototyping is problematic.
2. Differentiate system and computer based system.
3. Specify at least six context free questions
4. What is the purpose of domain analysis?
5. Draw a ACD for Safe Home security system.
6. Differentiate Transform flow and Transaction flow.
7. What are the guidelines (at least two) for equivalence classes?
8. What is the use of drivers and stubs in unit testing?
9. Give the difference between Fuzzy logic sizing and Function point sizing.
10. How to determine the earned value?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Describe the process model which defines a network of activities? (8)
(ii) Why the “First System” is throw away system? Explain the concept with advantages and disadvantages. (8)

Or

- (b) (i) Draw a system engineering hierarchy diagram and explain the concept. (8)
(ii) Explain the process model that combines the elements of waterfall and iterative fashion. (8)

12. (a) (i) How to select the appropriate prototyping approach? Explain. (8)
(ii) Explain about the cardinality and modality with suitable example. (8)

Or

- (b) (i) What is the use of context diagram? Draw a Level-1 DFD and STD for photocopier software. (8)
(ii) Describe about control specification and process specification. (8)
13. (a) (i) Draw a translating diagram for analysis model into a software design. Brief about each translations. (8)
(ii) Give a complete template for documentation design specification. (8)

Or

- (b) (i) How the interrupts are handled in real time systems? Explain. (8)
(ii) Write a note on real time software design. (8)
14. (a) (i) What are all the formulas for cyclomatic complexity? Calculate cyclomatic complexity for greatest of three numbers. (8)
(ii) How the RST (Reflexive, Symmetric, and Transitivity) is related to black box testing? Give example. (8)

Or

- (b) (i) What is the necessity of unit testing? Write down all unit test considerations. (8)
(ii) Explain about system testing. (8)
15. (a) (i) Brief about 3D function point measures. (8)
(ii) How to measure quality and defect removal efficiency (DRE). (8)

Or

- (b) (i) How to compute Task Set Selector (TSS) value? Explain. (8)
(ii) Brief about taxonomy of case tools (at least eight). (8)

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