

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code : 21505

B.E./B.Tech. DEGREE END SEMESTER EXAMINATION, MAY/JUNE 2013.

Eighth Semester

Information Technology

IT 2053/IT 804 — SOFTWARE DESIGN

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List the actions to be performed by a designer in deriving and specifying a solution to a problem.
2. Mention the strengths and weaknesses of mathematical notation.
3. Distinguish between cohesion and coupling.
4. List the guidelines for data design.
5. What are antipatterns? What are the different varieties of antipatterns?
6. What is an object oriented software framework?
7. List the strengths and weaknesses of stepwise refinement strategy.
8. What are the aspects of software development that are influenced by the concept of architecture?
9. What are the factors based on which the quality of a file transfer protocol can be evaluated?
10. Draw a level -1 DFD for a software that keeps track of the pages visited by a user on the world wide web with the goal of finding the area of interest of interest of the user.

PART B — (5 × 16 = 80 marks)

11. (a) Describe a framework for assessing design quality. Discuss the quality factors and the dimensions that need to be considered when assessing the design quality. (16)

Or

- (b) (i) Discuss the objectives of software design. (8)
- (ii) Discuss the reasons why object orientation works. (8)

12. (a) Explain the transformation a DFD to a structure chart with an example. (16)

Or

(b) Write notes on the following:

(i) Problem partitioning and hierarchy (8)

(ii) Abstraction (4)

(iii) Modularity. (4)

13. (a) (i) Explain Booch methodology. (8)

(ii) Illustrate the differences between structured approach and object-oriented approach using a payroll program. (8)

Or

(b) Perform object oriented analysis and design of bank ATM using the use-case driven process. (16)

14. (a) Write notes on the following:

(i) JSD design process (8)

(ii) Design by template. (8)

Or

(b) Write notes on the following:

(i) JSP heuristics (8)

(ii) Incremental design. (8)

15. (a) Analyze and discuss the issues in the various steps of software design in the implementation of SNMP agent. (16)

Or

(b) Explain a multimedia application in the context of software design. (16)