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

Question Paper Code : 31505

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 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 out any two objectives are to be considered for software design.

2.   Mention the metrics used for assessing the software design.

3.   Draw a DFD for withdrawing amount from ATM.

4.   Define coupling.

5.   Draw a sequence diagram to validate the user in the ATM.

6.   What is a design pattern? State its necessity.

7.   List out the phases available in stepwise refinement.

8.   Expand DSDM and JSD.

9.   How HTTP differs from FTP?

10. Which are the protocols used to sent/receive E-mail?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain various view points for software design in detail.   (8)

          (ii) Describe about design process.   (8)

Or

     (b) Explain any two software models in detail with. Enumerate advantages
          and disadvantages of each one of them.   (16)

12. (a) (i) Explain how to convert DFD into structure chart in detail with an example. (8)

(ii) Discuss various types of coupling in detail. (8)

Or

(b) (i) Draw DFD to develop an online shopping. (8)

(ii) Write short note on the following with an example. (8)

(1) Top down and bottom up strategy

(2) Modularity.

13. (a) (i) Explain design patterns and frameworks in detail. (8)

(ii) Compare and contrast between Rumbaugh and Booch methods with respect to object, class and their relationships. (8)

Or

(b) Draw the following UML diagrams for Air ticket booking and canceling. (16)

(i) Use case diagram

(ii) Class diagram with relationship and multiplicity

(iii) Collaboration diagram

(iv) Interaction diagram. (4 × 4)

14. (a) Explain in detail about stepwise refinement and incremental design. (16)

Or

(b) (i) Explain about DSDM. (8)

(ii) Discuss about structured systems analysis and JSD. (8)

15. (a) Explain the architecture of DNS and its working principle in detail with an example. (16)

Or

(b) (i) Explain why machine names should not be bounded into the operating system at compile time. (8)

(ii) Explain how to evaluate any SNMP equipment using MIB. (8)