Bachelor in Information Technology (BIT)

Term-End Examination

December, 2007

CSI-02 : SYSTEMS ANALYSIS

Time : 3 Hours   *Maximum Marks : 75*

Note :   *Section A is **compulsory**. Questions 1 to 10 of Section A carry one mark each. Questions 11 to 14 carry 5 marks each. Answer any **three** questions from Section B. Each question of Section B carries 15 marks.*

SECTION A

1. _____ is a software engineering task that bridges the gap between system level requirements engineering and software design.   *1*

   (a) Coding

   (b) Testing

   (c) Maintenance

   (d) Requirements Analysis

2. Software is built to process   *1*

   (a) data

   (b) only programs

   (c) anything

   (d) 'C' language programs only

3. _____ represents the manner in which data and control change as each moves through a system.   *1*

   (a) Arrows

   (b) Data flow

   (c) Information flow

   (d) Labels

4. _____ represents the internal organization of various data and control items.   *1*

   (a) Boxes

   (b) Information structure

   (c) Data flow

   (d) Information flow

5. The _____ is the first technical representation of a system.

   (a) Design model

   (b) Analysis model

   (c) Documentation

   (d) Meta-data

6. _____ answers a set of specific questions that are relevant to any data processing application. 1

   (a) Functional modeling

   (b) Data modeling

   (c) Any modeling

   (d) Flow charts

7. _____ define(s) the properties of a data object. 1

   (a) Table

   (b) Attributes

   (c) Variable

   (d) Constant

8. The design should be traceable to the _____ model. 1

   (a) Functional

   (b) Data

   (c) Analysis

   (d) None of the above

9. _____ is a representation of the logical relationship among individual elements of data. 1

   (a) Data structure

   (b) Any software

   (c) Flow chart

   (d) DFD

10. _____ is a measure of interconnection among modules in a software structure.   *1*

    (a) Cohesion

    (b) Coupling

    (c) Lines of code

    (d) Size

11. Give any five examples of software development projects which are suitable to be developed using Spiral model. Justify your answer.   *5*

12. Draw an E – R diagram for a *Railway Reservation System*. Make assumptions wherever necessary.   *5*

13. Write at least two reasons why one activity should precede another activity before the second activity can begin.   *5*

14. Explain any two errors that may occur during Requirements analysis phase of a project.   *5*

SECTION B

*Answer any **three** of the following questions. Each question carries 15 marks.*

15. Draw detailed (at least upto 3 levels) Data Flow Diagrams for various processes involved in a *Pay-roll Processing System*. Make necessary assumptions. **15**

16. Write the problem definition of a software project which is amenable for development, using Spiral model. Justify your answer. **15**

17. Explain any five attributes of a Systems Analyst. **15**

18. Why do Systems Analysts use DFDs ? Write any three rules for drawing proper DFDs. **15**