Hajee Mohammad Danesh Science and TechnologyUniversity, Dinajpur
Department of Computer Science & Information Technology
B. Sc. in CSE
Semester Final Examination 2014(Jan-June)
Level 4 Semester I, Course Code: CIT 405, Credit: 3.0
Course Title: System Analysis and Design (Theoretical)

Time: 3 Hours

Total Marks: 90

[N.B. The figure in the right margin indicates the marks for respective question]

Section-A
Answer any THREE

1.	a)	Define System. What are the characteristics of a system? Discuss.	6
	b)	Explain the various categories of information relevant to decision making in business.	5
	c)	What is the goal of the functional decomposition approach to structured design?	4
2.	a)	What is SDLC? How does it relate to system analysis?	5
	b)	An analyst has to play various roles. Explain any three of them.	6
	c)	What are the symbols used in DFD? Discuss.	4
3.	a)	What are the sources of information to originate?	3
	b)	What traditional information-gathering tools are available for the analyst? Explain any one of these tools briefly.	5
	c)	A question may be open or closed ended. Illustrate the difference.	3
	d)	Discuss about the classification of Maintenance.	4
4.	a)	Summarize the attributes of structured analysis.	3
	b)	What do you mean by leveling in DFDs? Explain with the help of an example.	5
	c)	List and illustrate the primary uses and elements of a decision table.	4
	d)	Draw the logical data description hierarchy.	3

Section-B
Answer any THREE

1. a) Define Feasibility study. List the steps in feasibility analysis. 4

   b) Differentiate between i) Tangible and Intangible costs   ii) Direct and Indirect costs 4

   c) Define Break-even point. 2

   d) What development activities are carried out during structured analysis? Discuss. 5

2. a) Define the procedure for cost/benefit determination. ?

   b) Give an example, showing entities, attributes, and their values. 4

   c) Define database. Discuss about the objectives of database. 5

   d) Distinguish between the following: 4

      i)   Cohesion & Coupling

      ii)   HIPO & IPO

3. a) What is implementation? How does it differ from conversion? Elaborate. 3

   b) List and briefly describe the factors that affect the quality of a system. 4

   c) How is stress testing different from volume testing? 3

   d) Explain briefly three approaches for data entry. 5

4. a) List the steps for establishing a system project. Which step do you think is the most 4
   critical? Why?

   b) What skills and qualifications are required of a project leader? Explain. 4

   c) Distinguish between the following: 4

      i)   Privacy and Confidentiality

      ii)   Rollforward and Rollback

   d) What types of failures are encountered in a database environment? Explain briefly. 3