Comilla University
Department of Computer Science and Engineering
2nd Year 2nd Semester Final Examination-2019 (Session: 2017 – 2018)

Course Code: CSE-2203   Course Name: System Analysis and Design

Full Marks : 60   Time: 3 Hrs.

Answer any five (5) from the following questions. Figures to the right indicate full marks.

1. a) What are the purposes of using System Development Life Cycle (SDLC)? Illustrate phases of SDLC by considering a problem domain of interest.   6
    b) List the major activities of requirement determination.   2
    c) What are the problems of beginning design without the proper analysis?   4

2. a) What design methodologies are used in system design? Explain.   5
    b) What are the advantages of top down design? Elaborate.   3
    c) What criteria are required for software selection? Discuss.   4

3. a) Discuss the concept of MIS and DSS. How are they related and how do they differ?   4
    b) Compare structured interview with unstructured interviews.   4
    c) Describe stages of whole interviewing process.   4

4. a) Discuss briefly the net benefit analysis and present value analysis.   6
    b) Explain the concept of Direct or Indirect costs and benefits.   4
    b) What is the present value of $ 1250 invested at 10 percent interest at the end of fifth year?   2

5. a) What is key attribute? Explain different types of keys those are used in databases.   4
    b) Show the basic components of Entity-Relationship diagram. Draw a E-R diagram for "Hospital Management System"   6
    c) Differentiate between strong and weak entity set by considering a suitable example.   2

6. a) Elaborately discuss various factors those affecting system complexity.   4
    b) What are the advantages of DFD? Describe the basic elements of DFD. Differentiate between physical DFD and logical DFD. Describe a DFD for "Mess Management System".   4
    c) Mention the benefits of JAD session. Briefly explain the phases of Joint Application Development (JAD) session.   4

7. a) Differentiate between object and class. Demonstrate all components of a class diagram by considering a model for a customer order from a retail catalog.   6
    b) Briefly discuss (i) stages of system testing and (ii) rules for system testing.   6

8. Write short notes on the following terms: 12
    i. Feasibility study   ii. Open System   iii. Alpha testing   iv. Unstructured maintenance