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Department of Computer Science and Engineering
B.Sc. (Engineering) in CSE
Semester Final Examination 2018 (Jan-Jun)
Level 4 Semester I, Course Code: CSE 409, Credit: 3.0
Course Title: System Analysis and Design

Time: 3 Hours | Total Marks: 90

[N.B. The figure in the right margin indicates the marks for respective question and Split answer of any question is unacceptable]

Section-A
Answer any THREE

1. a) Define system. What are the elements of a system? Explain. 6
   b) What categories of information are relevant to decision making in business? Relate each category to the managerial level and an information system. 5
   c) Define system analyst. List out the main roles of a system analyst. 4

2. a) Why is a system proposal so crucial for system design? Explain. 4
   b) When does an analyst terminate a project? How does it tie in with post-implementation? Explain. 5
   c) Discuss the concepts of MIS and DSS. How are they related? How do they differ? 6

3. a) Define module coupling. 1
   b) Why is it difficult to determine user requirements? Illustrate. 4
   c) Elaborate on the technical and interpersonal skills required of systems analysts. When is one skill favored over the other? Why? 6
   d) What points should be considered in constructing a data dictionary? Be specific. 4

4. a) Explain the difference(s) between (i) structured and unstructured interviewing and (ii) open-ended and closed questions. Give an example of each. 6
   b) Define structured analysis. If you were to summarize the attributes of structured analysis in four short sentences. What would you say? 5
   c) "A project manager must be the kingpin of personnel motivation." Do you agree? Discuss in detail. 4

Section-B
Answer any THREE

1. a) What traditional information gathering tools are available for the analyst? Explain any two of the tools briefly. 6
   b) How do net present value and present value analysis differ? Illustrate. 4
   c) Discuss the various training aids used for training users on a new system. 5

2. a) Explain various types of feasibility studies that the analyst should consider. 6
   b) What is a Gantt chart? How would you develop one? How does it differ from a PERT chart? Explain. 5
   c) Write short note on system models. 4

3. a) "Structured design provides the best partitioning of a program into small, independent modules organized in a top-down manner." Do you agree? Illustrate. 5
   b) Discuss the steps for establishing a system project. Which step do you think is the most critical? Why? 6
   c) Distinguish between System maintenance and enhancement. 4

4. a) Define quality assurance. What levels of quality assurance must a system meet? Explain. 5
   b) Define system security. List and briefly explain the control measures in system security. 6
   c) Distinguish between the following: 4
      (i) Physical and abstract systems (ii) Tangible and intangible benefits