

B.Sc. (Honours) Examination 2018
Semester-V
Computer Science
Course : BCSE-53
(System Analysis and Design)

Time : 3 Hours

Full Marks : 40

Questions are of value as indicated in the margin

Answer question No. **1** and **any four** from the rest.

1. Write **any four** from the following : 4×2=8
 - i) How does a software differ from an isolated computer program?
 - ii) What do you mean by the *wear out* phase of a hardware?
 - iii) Compare and contrast flow chart and DFD.
 - iv) Explain the terms entity sets and relationship sets in the context of Entity Relationship Analysis.
 - v) Compare and contrast present value method and payback method with respect to the cost benefit analysis of software Project.
 - vi) What is SRS document? Why it is so important?
 - vii) What do you mean by Tangible and Intangible item of a project?
 2. What are the characteristics of good DFD? What are the differences between DFD and Flochart? What do you mean by Logical DFD and Physical DFD? Explain with an example. Explain with an example what is meant by balancing of DFD. 2+1+2+3=8
 3. Develop an E-R diagram with the N-ary relationship sets for the following: 3+3+2=8

Customers make orders;
Customer buy Parts;
Parts are available from the Stores.

Reduce the E-R diagram to a number of Binary relationships. Explain the relationship cardinality for above E-R Diagrams.
 4. What are the various components of Computer based Information System? Explain briefly the goal of System Analysis and Design. What is decision support system? Explain its purpose. 3+2+2+1=8
 5. What are some typical Information Systems for an organization. What is Inventory control system and what are the purposes of Inventory Control System? 4+2+2=8
 6. Discuss the important guidelines for setting the project goal. What do you mean by the feasibility analysis of a Project? What is the main purpose of the study of the economic feasibility? 3+2+3=8
 7. What are the advantages and disadvantages of classical waterfall model? What is iterative waterfall model? How is software developed in prototype model? When the V-model is used for software development? 2+1+3+2=8
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