

**BACHELOR OF COMPUTER APPLICATIONS  
(BCA) (Pre-Revised)**

**Term-End Examination**

**June, 2017**

**00381**

**CS-05 : ELEMENTS OF SYSTEM ANALYSIS  
AND DESIGN**

*Time : 3 hours*

*Maximum Marks : 75*

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**Note :** *Question number 1 is compulsory. Attempt any  
three questions from the rest.*

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1. (a) Considering an "Automobile Workshop" draw a Data Flow Diagram (DFD) depicting various processes, data flows and data repositories. 8
  
- (b) What is Quality Assurance ? Explain the different stages of Quality Assurance. 5
  
- (c) What is Prototyping ? What are the underlying principles of Prototyping ? Explain briefly the steps involved in the prototyping process with reference to Q. 1(a). 7

- (d) Explain the following tools with the help of an example for each : 10
- (i) Structured Flow Chart
  - (ii) HIPO Diagrams
  - (iii) Warnier/Orr Diagrams
2. (a) Explain Benchmark Testing with the help of an example. 5
- (b) Describe Software Piracy. Explain all forms of software piracy. How can each one of them be eradicated ? 10
3. (a) What is Software Crisis ? Describe the problems related to software crisis from the perspective of a programmer and a user. 8
- (b) What is a programming language ? Describe the salient features of the various generations of programming languages, specifying one example language for each generation. 7
4. (a) What are the various activities involved in the 'Design' phase of SDLC ? Explain them briefly. 8
- (b) Construct a dialog tree showing its branches for "prompting the menu items" of your choice. Also, explain the significance of the dialog tree. 7

5. (a) What is MIS ? Explain the functions of MIS, with reference to any application. 5
- (b) What is Disaster Recovery Planning ? Explain its importance. 5
- (c) What is Data Dictionary ? Describe its structure and uses. 5
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