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B.Sc./HD CIT 4th semester (59) 04 October, 2011 (Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
Department of Computer Science and Information Technology (CIT)

SEMESTER FINAL EXAMINATION SUMMER SEMESTER, 2010-2011

DURATION: 3 Hours FULL MARKS: 150

CIT 4407: System Analysis and Design

Programmable calculators are not allowed. Do not write anything on the question paper.

There are **8 (eight)** questions. Answer any **6 (six)** of them.

Figures in the right margin indicate marks.

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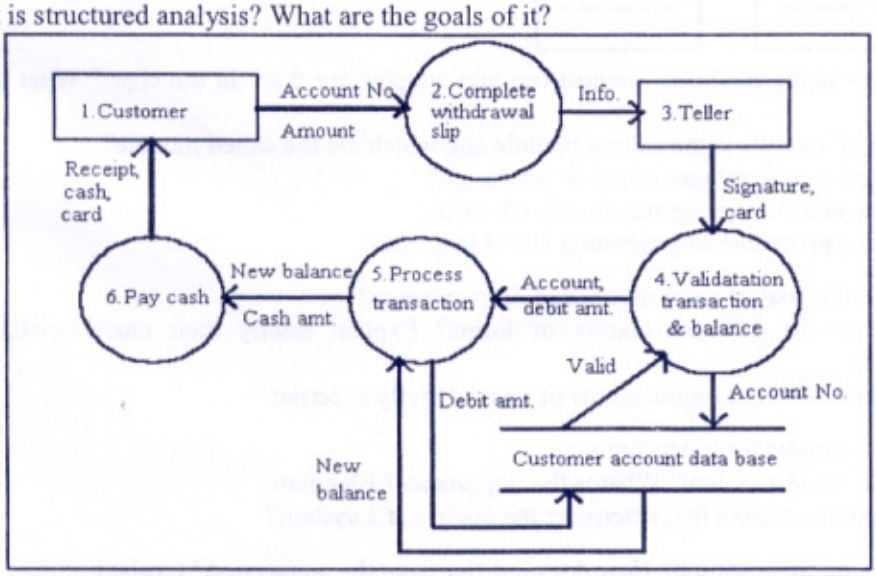
1. a) Explain the role of an analyst as an architect and politician. 8
   b) Distinguish between pool approach and team approach in programming. 8
   c) The role of an analyst as a salesperson is crucial because selling the system to the user is the ultimate goal of a system analyst. To perform the selling successfully what are the qualification you think an analyst must have? 9

2. a) What are the benefits that prototyping provides over other strategies of determining information requirement? 8
   b) Information is available from internal and external sources. What are those sources? In what circumstances would the analyst depend more on external than internal information? Why? 10
   c) If you need to gather biographical information (age, education, experience etc.) of 10 employees of an office within 1 hour, which type of interview and questionnaires you would propose? 7

3. a) What is structured analysis? What are the goals of it? 6
   b) 12



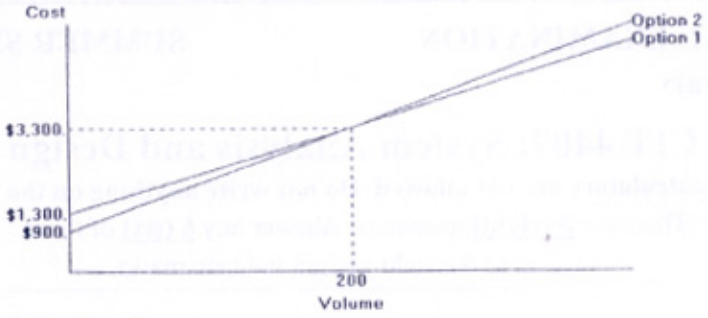
i. Find the symbols and classify them to their corresponding type from the DFD.
ii. What the given DFD is about? Explain the procedure from the DFD.

   c) When do you think you would prefer a decision table rether than a decisoin tree? Explain. 7

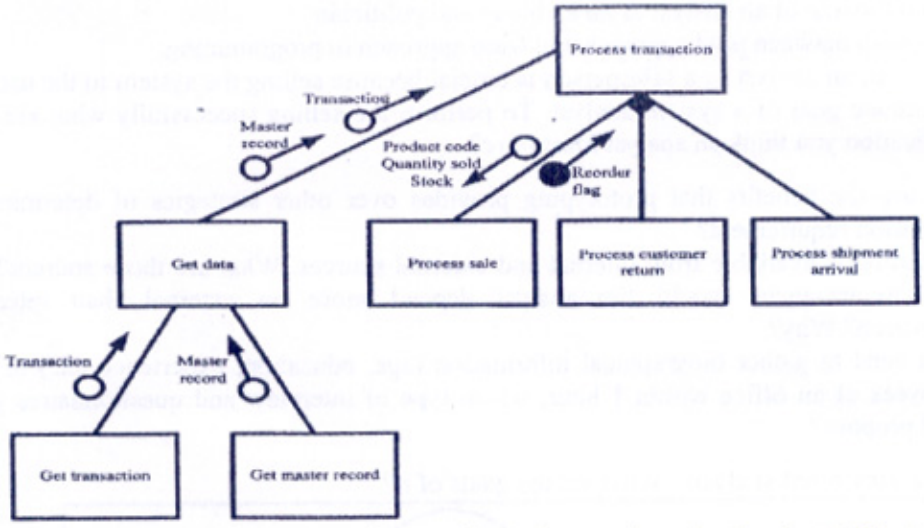
4. a) *"Many feasibility studies produce disillusion to users and analysts."* Do you agree? Why? Explain. 6

b) Briefly describe the cost and benefit catagories. 9

c) What the given diagram is about? Explain the diagram. 10



5. a) Consider the following diagram: 10



i. How many modules, connections and couples are there in the chart? What do they mean?

ii. Which module is the calling module and which are the called module?

b) What are the advantages of *top-down* design? 5

c) Explain *model coupling* and *model cohension*. 5

d) Write the procedure of generating HIPO diagram. 5

6. a) What is the goal of input design and output design? 5

b) What are the different classes of forms? Explain briefly their charactaristics with example. 10

c) What are the major requirements of form? Briefly describe. 10

7. a) Discuss various testing techniques. 5

b) Why do we test system? What is the importance? Elaborate. 10

c) What are the factors that determine the quality of a system? 10

8. a) What is implementation? How does it differ from the conversion? Explain. 8

b) *"Conversion has been chaotic and traumatic for many firms ."* Do you agree? Why? 7

c) While creating a test file what the test file should offer? 5

d) Distinguish between maintainance and enhancement. 5