The Open University of Sri Lanka

B. Sc. Degree program – Level 05

Closed Book Test 2009/2010

CSU 3277: Software Engineering

Duration: One and half hours

Date 04.11.2009 | Time: 4.00 p.m. to 5.30 p.m.

Answer **ALL Questions**.

1.

i. Compare and contrast between the two logic modeling techniques decision tables and decision trees.

ii. One of the bookstores gets discounts on books acquired from publishers. This is done through a publisher discount policy known to the bookstores in advance. The discount policy is illustrated below.

> Add up the number of copies per book title
> IF order is from bookstore and – IF ORDER is for 6 copies or more per book title
> THEN: Discount is 25%
> ELSE (order is for fewer than 6 copies per book title)
> SO: no discount is allowed
> ELSE (order is from libraries or individual customers)
> SO – IF order is for 50 copies or more per book title
> Discount is 15%
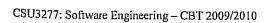> ELSE IF order is for 20 to 49 copies per book title
> Discount is 10%
> ELSE IF order is for 6 to 19 copies per book title
> Discount is 5%
> ELSE (order is for less then 6 copies per book order)
> SO: no discount is allowed.

> a. Represent the above information in a Decision Table.
> b. Represent the above information in a Decision Tree.

2.

i. Convert the following Decision table into Structured English.

Car / Discounts	1	2	3	4	5	6	7	8
2 YEAR AND MORE	Y	Y	Y	Y	N	N	N	N
JAPANESE MAKE	Y	Y	N	N	Y	Y	N	N
ACCIDENT	Y	N	Y	N	Y	N	Y	N
DISCOUNT 5%		X				X		
DISCOUNT 7.5%				X	X			X
DISCOUNT 10%			X				X	
CAR CLEANING KIT	X			X				

ii. Compare and contrast data flow diagrams and structure charts.