



DURATION: 1 HOUR

Date: 08.05.2016

Time: 1.00 p.m. – 2.00 p.m.

Answer **ALL** the following questions.

Q1.

- i) What are the problems that encountered during the development of computer software?
- ii) What are the six properties that good software should consist of? Briefly describe four of them.

Q2.

The following narration describes a process that determines whether a customer receives an item which has been ordered.

If the ordered item is an item we stock, and the customer is an approved customer, and we have sufficient inventory on hand, then subtract the quantity ordered from the inventory count, send a shipment authorization for the item and quantity to shipping, and log this transaction. If the item is not something we stock, reject the order. If the customer is not an approved customer, reject the order. If we stock the item, and the customer is approved, but we have insufficient inventory to fill the order, then place this order on backorder, send a notice to that effect, and add this order to the follow-up log.

- i) Draw a suitable **Decision Table** for the above scenario. In this table, indicate all the rules that can apply. *Hint: You may get 8 rules.*
- ii) Simplify the rules and obtain the reduced decision table.

Q3. A department has employees. An employee has a unique number, a name and a salary. A department has a unique number and a name which is also unique.

Draw an Entity Relationship Diagram including attributes and primary keys.

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