

ICT2622

October/November 2016

OBJECT-ORIENTED ANALYSIS

Duration 2 Hours

80 Marks

EXAMINERS

FIRST

SECOND

PROF PL MKHIZE

DR S SINGH

Closed book examination

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This examination paper consists of four (4) pages.

Instructions:

- 1 Answer ALL the questions
- 2 The mark allocation for each question appears in brackets next to the question
- 3 Write down all the answers and do all the rough work in your answer book.
- 4 Number your answers and label your rough work clearly.

[TURN OVER]

Question 1**[8]**

Describe the steps followed in preparing for, conducting and following up an interview session

Question 2**[10]**

List and briefly describe the SIX information gathering techniques

Question 3**[10]**

Based on figure 1 shown below, draw a use case diagram that shows use cases and actors

CSMS Reporting Subsystem	
Use cases	Users/actors
Produce daily transaction summary report	Management
Produce sales history report	Management, marketing
Produce sales trends report	Marketing
Produce customer usage report	Marketing
Produce shipment history report	Management, shipping
Produce promotion impact report	Marketing
Produce promotional partner activity report	Management, marketing

Figure 1 CSMS Reporting Subsystem

Question 4**[20]**

Based on the complete RMO CSMS domain model class diagram in figure 2 below, draw a domain model class diagram for the CSMS Order Fulfillment subsystem

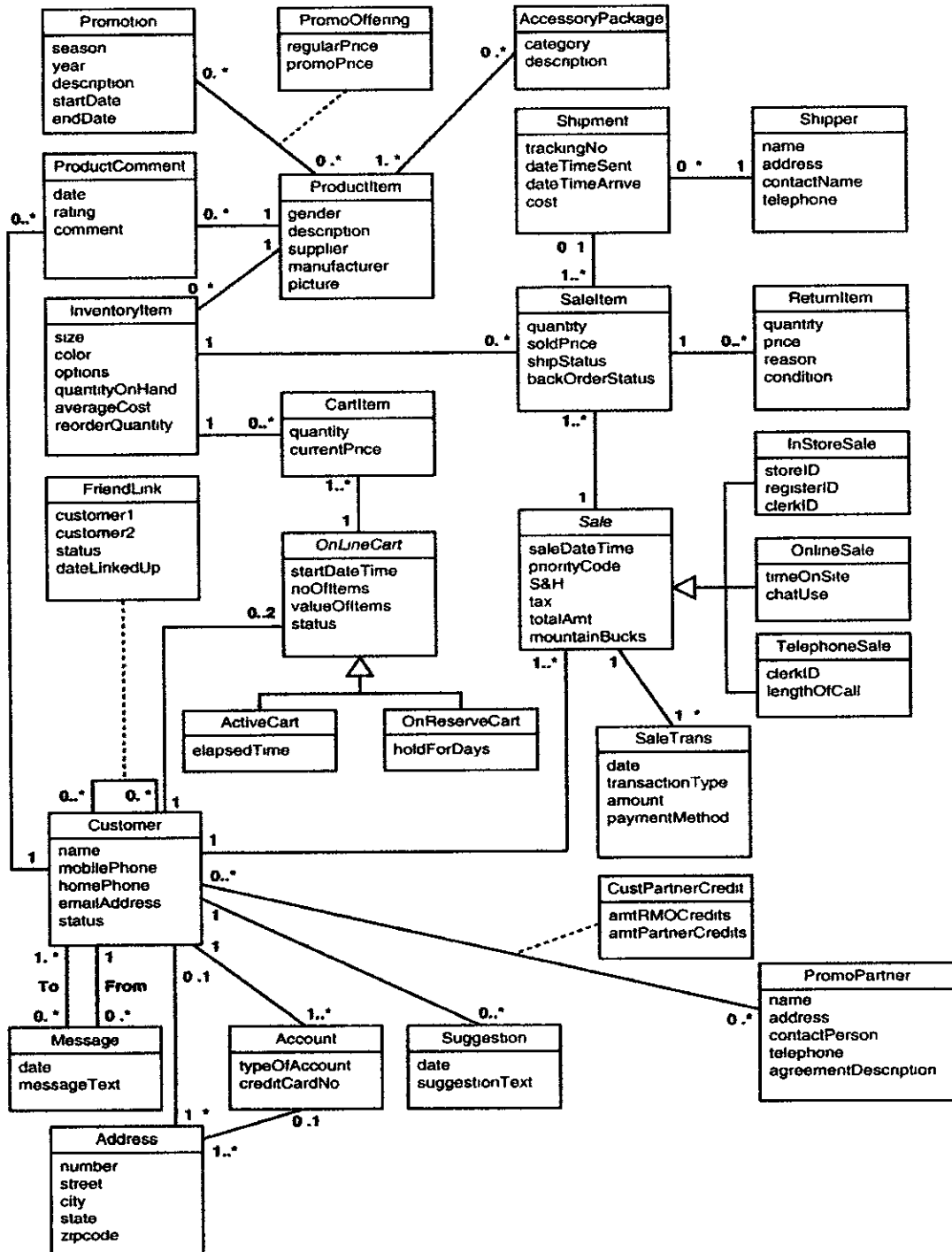


Figure 2: The complete RMO CSMS domain model class diagram

[TURN OVER]

Question 5**[20]**

Based on the following narrative, develop an activity diagram for the use case of *add a new vehicle* to an existing policy in a car insurance system.

A customer calls the administrator at the insurance company and gives her policy number. The administrator enters the information, and the system displays the basic insurance policy. The administrator then checks the information to make sure that the premiums are current and the policy is in force

The customer supplies the make, model, year and the vehicle identification number (VIN) of the car to be added. The administrator enters the information, and the system ensures that the given data are valid. Next, the customer selects the type of coverage desired and the relevant amount

The administrator enters the information, and the system records it and validates the requested amount against the policy limits. After all the coverage benefits have been entered, the system should ensure that total coverage against all other ranges, including other cars on the policy. Finally, the customer must identify all the drivers of the car and the percentage of time each will drive the car. If a new driver must be added, then another use case – ***Add new driver*** – is invoked.

At the end of the process, the system updates the policy, calculates a new premium amount, and prints the updated policy statement to be made available to the policy owner

Question 6**[12]**

List 12 Agile modeling principles