Semester Two Examination 2020

Question/Answer Booklet

COMPUTER SCIENCE UNITS 1 and 2

SOURCE BOOKLET

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This information relates to questions in Section Two

Use the information below to help answer Question 21(a), (c) and (d)

The Central Vet Clinic is run by people who care for your pets. Close to the city with parking at the rear, they cover all pet health needs. Major surgery and all general vet procedures including sterilisations, dental and vaccination. There's a good range of foods and pharmaceuticals, such as flea and worm treatments. Customers will be able to use a website to browse available pet services, check open hours and call the receptionist to schedule an appointment with the qualified vet.

- Customers needing pet health goods and services such as sterilisation, vaccinations or worming tablets call the clinic to make an enquiry. The pet health nurse will ask for the customer and pet details. The nurse will check if the customer and pet details are stored in the customer database. Any changes to these details are written back to the customer database. Once completed, the pet health nurse will inform the customer that their details have been confirmed.

- The nurse checks the vet availability from the appointment file and provides the customer with available appointment times. The customer confirms an appropriate appointment date and time. An email is sent to the customer outlining the appointment details such as the reference number, date and time of the appointment and which vet will be seeing their pet.

- When the customer arrives for the appointment the customer gives the nurse the appointment reference number. The pet is weighed, and this detail is added to the appointment file. The vet meets with the customer and their pet and provides pet health goods and services which are added to the appointment file.

- Once the appointment is finished the nurse retrieves the appointment details from the appointment file and processes payment for the pet health goods and services. The customer is given an invoice for payment. The customer can pay via cash or card. Once payment has been received the customer is given a printed receipt.

Use the information below to help answer Question 22(a).

Customer Number	Customer First Name	Customer Last Name	Pet Name	Vet First Name	Vet Last Name	Appointment Date	Time
2165	Christine	Carson	Felix	Ruth	Adams	1/02/2019	16.20pm
2072	Simon	Lee	Winks	Yousef	Ali	14/06/2019	11.45am
2822	Brook	Hocking	Bowie	Ruth	Adams	8/08/2019	9.00am
2165	Christine	Carson	Felix	Philip	Jenkins	9/08/2019	17.30pm
2072	Simon	Lee	Winks	Philip	Jenkins	9/08/2019	9.30am
2822	Brook	Hocking	Bowie	Philip	Jenkins	30/11/2019	13.15pm
2165	Christine	Carson	Felix	Yousef	Ali	5/06/9019	10.35am

Note:
Customers can make many appointments with the vets.
A customer can own many pets.
Each vet can have many appointments in a day.

Use the information below to help answer Question 23(b). and 23(c)

The Central Vet Clinic is considering upgrading the services it provides to include a reward points system. When a customer uses their card at The Central Vet Clinic, they will receive reward points that can be used towards further discounts – the more the card is used, the greater the number of points and the greater the discount.

In order to do this, The Central Vet Clinic need to track customer purchases. It plans to allocate points for every dollar spent (e.g. 1 point for every $1.00 spent).

The proposed point system The Central Vet Clinic plan to use to calculate the customer status are as follows.

Status	Points	Discount
Classic	< 500	0
Bronze	501 - 1000	5%
Silver	1001 - 2000	7.5%
Gold	> 2000	10%

The clinic uses the following algorithm to calculate the invoice for the customer.

```
Begin
1     totalPrice ← 0
2     input(customerNumber)
3     Input(currentPoints)
4     continue ← 'Y'
5     While continue = 'Y'
6         input (price)
7         totalPrice ← totalPrice + price
8         currentPoints ← currentPoints + price
9         input(continue)
10    End While
11    Case currentPoints of
12        < 500 : discount ← 0
13        <=1000 : discount ← 0.05
14        <=2000 : discount ← 0.075
15        > 2000 : discount ← 0.1
16    End Case
17    totalCost ← totalPrice - (totalPrice * discount)
18    Output('The total price is $', totalCost)
End
```

Use the information below to help answer Question 24.