

## EDM User Experiment

### Marking Scheme

#### Task 1

Class Name	Weight (marks)
Program Owner	1
Owner Product	2
Partner	1
Partner Product	1
Owner Offer	2
Partner Offer	1
Promotion Vehicle	2
Fixed Price Off	2
Fixed Percent Off	2
Base Mechanic	2
Base Points	2
Bonus Mechanic	2
Bonus Points	2
Bill	5
Member	2
Registration	1
Account	2
Card	1
Points (Accumulated)	2
Points (Redeemed)	2
Redemption Channel	1
Redemption Mechanic	1
Regular Product	1

Association Name	Weight (marks)
<b>PartnerProduct</b> <i>belongs to</i> <b>Partner</b>	1
<b>OwnerProduct</b> <i>belongs to</i> <b>ProgramOwner</b>	1
<b>Offer</b> <i>about a</i> <b>PartnerProduct</b>	1
<b>Offer</b> <i>about an</i> <b>OwnerProduct</b>	1
<b>Offer</b> <i>promotes/promoted By</i> <b>PromotionVehicle</b>	1
<b>Member</b> <i>accepts an</i> <b>Offer</b>	1
<b>Member</b> <i>performs</i> <b>Registration</b>	1
<b>Registration</b> <i>creates an</i> <b>Account</b>	1
<b>Member</b> <i>has/uniquely identifies</i> <b>Account</b>	1
<b>Account</b> <i>is associated with</i> <b>Card</b>	1
<b>Bill</b> <i>includes</i> <b>OwnerProduct</b>	1

<b>Offer uses BonusMechanic</b>	1
<b>Offer uses FixedPriceOff</b>	1
<b>Offer uses FixedPercentOff</b>	1
<b>Offer addedTo Bill</b>	1
<b>Bill applies BaseMechanic</b>	1
<b>Bill applies BonusMechanic</b>	1
<b>Bill applies FixedPriceOff</b>	1
<b>Bill applies FixedPercentOff</b>	1
<b>Bill applies RedemptionMechanic</b>	1
<b>BaseMechanic</b> contributes <b>BasePoints</b>	1
<b>BonusMechanic</b> contributes <b>BonusPoints</b>	1
<b>Bill</b> contributes <b>Points</b>	1
<b>Bill</b> collects <b>Base Points</b>	2
<b>Bill</b> collects <b>Bonus Points</b>	1
<b>Account</b> accumulates <b>Points</b>	1
<b>Points</b> deductedFrom <b>Account</b>	1
<b>Points</b> redeemedvia <b>RedemptionChannel</b>	1
<b>RedemptionChannel</b> uses a <b>RedemptionMechanic</b>	1

## Task 2

- Which of the following answers is true? (1 mark)
  - Partner offers are applied to the entire member's bill.
- Can a customer earn and redeem points for the same bill? (1 mark)
  - No.
- Is *BaseMechanic* mandatory in the case of earning points? (1 mark)
  - Yes.
- Are the *Points* collected by the *Bill* those that are deducted from the *Account*? (1 mark)
  - No.
- What are they type(s) of *Points* that are collected by the *Bill*? (2 marks)
 

Base Points, Bonus Points.
- Are *Bonus* and/or *Price* mechanics mandatory? (1 mark)
  - No.
- When can a *Bill* have "*BonusMechanic*" without "*BaseMechanic*"? (1 mark)
  - Not applicable , or
  - FixedAmount is used instead of PointsMultiplier.

8. **When would it be the case that a *Bill* does not contribute *Points* to the member's *Account*? (1 mark)**  
In the case of redemption.
9. **Please provide an example to demonstrate the difference between a "*FixedPriceOff*" mechanic and a "*FixedPercentOff*" mechanic. (2 marks)**  
Fixed Price off: \$2 off a product.  
Fixed Percent off: 2% off a product's price.
10. **Describe in your own words the difference between "*fixedAmount*" and the "*PointsMultiplier*" attributes inside the "*BonusMechanic*" class? (2 marks)**  
Fixed Amount: fixed amount of bonus points (500 points)  
Points Multiplier: 5 times the base points.
11. **Which class(es) represent different ways of collecting points? (2 marks)**  
Base Points & Bonus Points, or  
Base Mechanic & Bonus Mechanic.
12. **Why do you think the "*BasePoints*" class is associated with the "*BonusMechanic*" class? (1 mark)**  
In case of Points Multiplier where the total of bonus points is x times the base points.
13. **What is the conceptual difference between the "*StorePoints*" and "*TotalPoints*" attributes inside the *Bill* class? (2 marks)**  
StorePoints: In-store base and bonus points.  
TotalPoints: Store Points + Partner points.
14. **Is it possible to have both "*PriceMechanic*" and "*BonusMechanic*" in the same object diagram? If yes, briefly describe the case. (1 mark)**  
Yes, if they are for different products.
15. **Given your created object diagram, assume Sobeys suddenly decides to change its policy to 500 Club Sobeys points for every \$1 spent in the store. Please mention all instances in your object diagram which would have their values changed accordingly to accommodate the change in Sobeys' policy? (5 marks)**  
a) Base Mechanic  
b) Base Points  
c) Bill  
d) Points Accumulated  
e) Account.