

**Time: 25 minutes Marks: 20**

| **Name** |  | **ID** |  |
| --- | --- | --- | --- |

1. Consider the following class diagrams for users in an online shopping platform. Here each user has a personal cart where he/she can add items to for checkout. Each user also has a membership status. As the system is in beta phase there are only two possible values for the integer ***User.*** ***membership\_status*** :

0 = ‘Not membership, 1 = ‘VIP membership’. The difference being users with VIP membership can apply a coupon which provides a 20% discount on the cart subtotal, whereas a non-member isn’t eligible to apply.

Now, devise two executable test cases for testing the **applyCoupon()** method of User class in the JUnit notation. The test case specifications are described for you - **[10+10 = 20]**

| **User** |
| --- |
| String useName  List<Item> cart  int membership\_status… |
| **User**(username, membership)  addTocart(item)  getCartSubtotal()  applyCoupon(Coupon)  isCouponApplied()… |
| **Item** |
| String name  String vendor  double price |
| **Item** (name, vendor , price) |

/\*case-1 write a test case for a user with membership. Try to add atleast two items to the cart and apply coupon. It is expected to be applied successfully. Check the cart subtotal and coupon status for consistency. You can check whether the coupon was added successfully or not with ***isCouponApplied****()* method.\*/

/\*case-2 write a test case for a user with no membership Try to add atleast two items to the cart and apply coupon. The system should throw “NotaMemberException” with message “This coupon is not applicable for you. Please upgrade to VIP.” Also check the cart subtotal and coupon status for consistency.\*/