CSE111 Summer 2025 LAB Exam 01 Tentative Solutions

1.1 Set A (Coding) Tentative Solution

```
public class WaterTank{
  String name;
  int capacity;
  boolean need=false;
  public void setDetails(String a, int b){
  name=a;
  capacity=b;
  if (b==0){
    need=true;
  }
  }
  public void status(){
    System.out.println("Tank name: "+name);
      System.out.println("Water left: "+capacity);
       System.out.println("Need a refill: "+need);
  }

  public void consume(int a, int b){
    int consumption=a*b;
    int left=capacity-consumption;
    if (left==0){
    need=true;
  }
    if(left>=0){
    capacity=left;
     System.out.println("Consuming "+consumption+" liters for "+b+" hours...");
    }
    else{
      System.out.println("Not enough water to consume "+consumption+" liters");
    }
  }
  public void refill(int a){
    capacity+=a;
    System.out.println("Refilling "+a+" liters for irrigation...");

  }

}
```

CSE111 Summer 2025 LAB Exam 1 Tentative Rubrics

1.2 Rubric for Set A (Coding)

SL	Points to Meet	Marks (10)
1	Correct use of instance variables	2
2	Correct dispense logic and fuel reduction	2.5
4	Proper update of needsRefill flag in both methods	2
5	Output	1.5
6	Method structure and naming consistency	1
7	Correct setDetails logic	1
Total		**10**

2.1 SET B (Coding) Tentative Solution

```
public class BatteryPack{
  String name;
  int charge;
  boolean need=false;
  public void setDetails(String a, int b){
  name=a;
  charge=b;
  if (b==0){
    need=true;
  }
  }
  public void printInfo(){
    System.out.println("Battery name: "+name);
      System.out.println("Charge left: "+charge);
       System.out.println("Need to recharge? "+need);
  }

  public void consume(int a, int b){
    int consumption=a*b;
    int left=charge-consumption;
    if (left==0){
    need=true;
  }
    if(left>=0){
    charge=left;
     System.out.println("Consuming "+charge+" units over "+b+" hours...");
    }
    else{
      System.out.println("Not enough charge to consume "+a+" units");
    }
  }
  public void recharge(int a){
    charge+=a;
    System.out.println("Recharging "+a+" units for high-performance
mode...");

  }

}
```

2.2 Rubric for Set B (Coding)

SL	Points to Meet	Marks (10)
1	Correct use of instance variables	2
2	Correct serve logic and juice level reduction	2.5
4	Proper update of needsRefill flag in both methods	2
5	Clear and informative output messages	1.5
6	Method structure and naming consistency	1
7	Correct setDetails logic	1
Total		**10**