

SET : A

```
class MagicPotion {
    public String color;
    public int strength;
    public boolean isActive = false;
    public void setDetails(String color, int strength) {
        this.color = color;
        this.strength = strength;
    }
    public void activate() {
        if (this.isActive==true){
            System.out.println("Already activated");
        }
        if (strength >= 5) {
            isActive = true;
        }
    }
    public void boost() {
        if (strength < 10) {
            strength++;
        }
    }
    public void weaken() {
        if (strength > 1) {
            strength--;
        }
        if (strength < 5) {
            isActive = false;
        }
    }
    public boolean isStrong() {
        return strength >= 7;
    }
    public void describe() {
        System.out.println("Potion colour :" +this.color);
        System.out.println("Potion strength :" +this.strength);
        System.out.println("Is active :" +this.isActive);
    }
}
```

SET : B

```
class SleepTracker {
    public String name;
    public int hoursSlept;
    public boolean isDreaming = false;
    public boolean awake = false;
    public void setDetails(String name, int hoursSlept) {
        this.name = name;
        this.hoursSlept = hoursSlept;
    }
    public void sleepMore(int n) {
        if (this.hoursSlept + n > 12){
            System.out.println("Can not sleep more than 12 hours");
            return;
        }
        if (this.hoursSlept<=8) {
            this.awake = false;
            this.hoursSlept+=n;
        }
        if (this.hoursSlept >= 10) {
            this.isDreaming = true;
        }
    }
    public void wakeUp() {
        if (this.awake==true){
            System.out.println("Panda is already awake");
        }
        this.hoursSlept = 0;
        this.isDreaming = false;
        this.awake=true;
    }
    public boolean isSleepy() {
        return this.hoursSlept < 5;
    }
    public void describe() {
        System.out.println("Panda name: " + this.name);
        System.out.println("Hours slept: " + this.hoursSlept);
        System.out.println("Is dreaming: " + this.isDreaming);
    }
}
```

Rubric

SET-A

<u>SL.</u>	<u>Points to Meet</u>	<u>Marks (10)</u>
1.	Java syntaxes (i.e. class, static void main, semicolon, curly braces and parentheses)	1
2.	Declaring necessary instance variables	1
3.	Properly writing the "Set Details" Method	1
4.	Properly writing the "Activate" Method	2
5.	Properly writing the "Boost" Method	1
6.	Properly writing the "IsStrong" Method	1
7.	Properly writing the "Weekend" Method	2
8.	Properly writing the "Describe" Method	1
	Total	10

SET-B

<u>SL.</u>	<u>Points to Meet</u>	<u>Marks (10)</u>
1.	Java syntaxes (i.e. class, static void main, semicolon, curly braces and parentheses)	1
2.	Declaring necessary instance variables	1
3.	Properly writing the "Set Details" Method	1
4.	Properly writing the "SleepMore" Method	3
5.	Properly writing the "wakeup" Method	2
6.	Properly writing the "isSleepy" Method	1
7.	Properly writing the "describe" Method	1
	Total	10