

Simulation 2 Exam Java Basic 2022-2023

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min

Durée : 1 h 00

***Required**

1. Nom & Prénom : *

2. Donner l'affichage qui résulte de l'exécution de la classe Test Suivante *

```
package ma.cigma.exam.basic.q1;

public class Test {
    public static void main(String[] args) {
        School s=new School( id: 1, name: "CIGMA")
    }
}
```

```
public class School {
    private long id;
    private String name="FST";
    public School(long id) {
        this.id = id;
        System.out.println("A "+id);
    }
    public School(String name) {
        this(name.length());
        this.name += name;
        System.out.println("B "+this.name);
    }
    public School(long id, String name) {
        this(""+id++);
        this.id = id;
        this.name = name;
        System.out.println("C "+id);
    }
}
```

3. Quelle est l'expression Lambda équivalente à l'interface fonctionnelle suivante *

```
package ma.cigma.exam.basic.q2;

@FunctionalInterface
public interface Reachable {
    String reach(String path,Integer miles);
}
```

Tick all that apply.

- ☐ Reachable r1= (a,b)-> a+b;
- ☐ Reachable r2= a,b-> a+b;
- ☐ Reachable r3= (a,b)-> return a+b;
- ☐ Reachable r4= (a,b)-> {return a+b};
- ☐ Reachable r4= (a,b)-> {return a+b};

4. Choisir les instantiations possibles *

```
package ma.cigma.exam.basic.q3;

public class Laptop {
    private long serial;
    private String description;
}

public class Hp extends Laptop{
    private double resolution;
}
```

Tick all that apply.

- ☐ Object o1 = new Hp();
- ☐ Hp o2=new Laptop();
- ☐ Laptop o3=new Hp();
- ☐ Laptop o4=new Object();
- ☐ Laptop o5 = new Laptop("serialID","23193");

5. Quels sont les objets room qui seront stocké dans la collection rooms *

```
package ma.cigma.exam.basic.q4;
import java.util.HashSet;
import java.util.Set;

public class Test {
    public static void main(String[] args) {
        Set<Room> rooms = new HashSet<>();
        rooms.add(new Room( id: 1, name: "NIZAR"));
        rooms.add(new Room( id: 2, name: "SONAR"));
        rooms.add(new Room( id: 1, name: "QUBE"));
        rooms.add(new Room( id: 1, name: "CLOUD"));
        rooms.add(new Room( id: 2, name: "JUNIT"));
        System.out.println(rooms);
    }
}
```

```
public class Room {
    private long id;
    private String name;
    @Override
    public boolean equals(Object o) {
        Room room = (Room) o;
        return id == room.id;
    }
    @Override
    public int hashCode() {
        return name.length();
    }
    public Room(long id, String name) {
        this.id = id;
        this.name = name;
    }
    @Override
```

```
    public String toString() {  
        return "Room{" + "id=" + id + ": name="+name+"}"  
    }  
}
```

Tick all that apply.

- ☐ [Room{id=1: name=QUBE}, Room{id=1: name=NIZAR}, Room{id=2: name=SONAR}]
- ☐ [Room{id=1: name=NIZAR}, Room{id=2: name=SONAR}]
- ☐ [Room{id=1: name=QUBE}, Room{id=1: name=CLOUD}, Room{id=2: name=JUNIT}]
- ☐ [Room{id=1: name=QUBE}]
- ☐ [Room{id=1: name=QUBE}, Room{id=1: name=NIZAR}, Room{id=2: name=SONAR},
Room{id=1: name=CLOUD}, Room{id=2: name=JUNIT}]

6. Donner l'affichage de la classe Test suivante *

```
package ma.cigma.exam.basic.q5.statickey;

public class Test {
    public static void main(String[] args) {
        String type1=Student.addType(newType: "B");
        String type2=Student.addType(newType: "C");
        System.out.println(type1);
        System.out.println(type2);
    }
}

public class Student {
    private long id;
    private static String type="A";
    public static String addType(String newType){
        type+=newType;
        return type;
    }
}
```

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