

SECTION B

Instruction: Answer any 3 questions. Each question carries 5 marks.

1. What is your understanding of a global variable? (1 mark)

- Use the code snippet, create two variables, make one a global variable and a local variable:

```
public class Test {  
    public static void main(String[] args) {  
        }  
}
```

(2 marks)

- What is the difference between a pre increment (`++b`) and a post increment (`b++`). (2 marks)

2. Create a function that will take a person's name and age as input and print them to the console. (2marks)

- List two differences between a primitive and a reference type in Java. (2 marks)
- What is an expression? (1 mark)

3. Discuss about initialization and declaration of a variable. (2 marks)

- Give an example for each. (1 mark)
- What is considered a Boolean operator? (1 mark)
- Formulate a statement or an expression with all Boolean operators. (1 mark)

4. You are given an Array with five empty slots to fill in with any number; `int[] n = new int[5];`:

```
for (int i = 0; i < ; i++) {  
    n[] = i;  
}
```

- Complete the Algorithm, make sure the `n` Array got populated with all the values of `i`. (2 marks)
- Print all the elements from the `n` Array. (1 mark)
- Discussion about Array as a Data Structure. (2 marks)

5. What is an Object? (1 mark)

a. Suppose a class is defined:

```
class Person{  
    String name;  
    int age;  
  
    @Override  
    public String toString() {  
        return "Person{" +  
            "name=\"" + name + '\"' +  
            ", age=\"" + age +  
            '\"';  
    }  
}
```

Create an object of Person. (1 marks)

b. Assign values to person name and age. (1 mark)

c. Print person information by invoking the `toString()` method (2 marks)

6. List all comparison operators. (1 mark)

a. Consider this: `int a = 9;` and `int b = 5;`. Compare these two variables with all the operators listed above. (2 marks).

b. What are logical operators? (1 mark)

c. List all the logical operators. (1 marks)