



PAN AFRICA CHRISTIAN UNIVERSITY

DICT

END OF TERM EXAMINATION

DEPARTMENT: COMPUTING & INFORMATION TECHNOLOGY

COURSE CODE: DICT0125

CAMPUS: ROYSAMBU

COURSE TITLE: OBJECT ORIENTED PROGRAMMING

EXAM DATE: TUESDAY, DATE (DDTH MONTH YEAR)

TIME: START HOUR – END 8:00-11:00 HRS

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other three questions in Section **B**.
- None programmable calculators permitted
- Calculators on phones, tablets and computers are NOT permitted in Theory Papers

SECTION A

(Answer ALL questions in this section)

QUESTION 1

- a) State THREE reasons making Java an object-oriented programming language of choice to many programmers **(3 Marks)**
- b) Using a code snippet, distinguish between a conditional control structure from a repetitive control structure **(4 Marks)**
- c) Write a java program that will prompt for two values, compute and display their sum **(3 marks)**

SECTION B

(Answer any THREE (3) questions in this section)

QUESTION 2

- a) Explain TWO reasons for use of methods in writing programs **(4 Marks)**
- b) Write a method that computes the volume of a cube, the length is passed as a parameter. Call the method within main to display the volume accordingly **(6 marks)**

QUESTION 3

- a) Study the following code snippet and explain THREE reasons for use of access specifiers **(6 marks)**

```
class Hello{
    protected int data=40;
    private void msg(){System.out.println("Hello java");
}
}
public class Hard
{
    public static void main(String args[])
    {
        A obj=new Hello();
        System.out.println(obj.data);
    }
}
```

```
obj.msg();  
}
```

- b) Using for loop control structure, write a java program to display **"God is good"** five times **(4 Marks)**

QUESTION 4

- a) Explain TWO importance for graphical user interface knowledge to object-oriented programmer **(4 marks)**
- b) You have been approached to write a simple program to determine whether a potential client in an entertainment joint is under age or an adult and give appropriate advice. Write down the probable code that you would provide using conditional control structures. **(6 Marks)**

QUESTION 5

- a) Distinguish inheritance from polymorphism **(2 marks)**
- b) Demonstrate how to define a constructor using a java code snippet **(3 marks)**
- c) Write a java program with a base class **Employee** and derived classes **Faculty** and **staff**. The base class should pass such features like rollNo, name and gender to its derived classes and display the results accordingly. **(5 Marks)**

QUESTION 6

- a) Describe your understanding of the term array and provide a code snippet on how to declare and initialize an array of three integers **(5 marks)**
- b) Using your knowledge on arrays, write a program that display days of the week **(5 marks)**

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