

### National Open University of Nigeria, University Village Plot 91 Cadastral Zone,

### NnamdiAzikiwe Express Way, Jabi, Abuja

**Faculty of Sciences**

**JULY 2018 EXAMINATIONS**

CIT 467: Visual Programming and Applications– (3 Credits)

Answer Question 1 and four other questions in 21/2 Hours.

Total of 70, Question 1 is 22 marks and others 12 marks each

1a. Describe a Software object (2 marks)

1b. List four (4) features of OOP (2 marks)

1c. List four (4) examples of OOP (2 marks)

1d. List any four (4) types of VPL (2 marks)

1e. Briefly describe the formal specification of VPLs. (2mks)

1f. Distinguish between process icons and object icons (3mks)

1g. Define the following terms:(1mk each)(6 marks)

i.) Web Presentation ii.) Web Site iii.) Web Page

iv.) Home Page v.) HTML vi) HTML Form

1h. Enumerate the type of lists available in HTML.(2 mks)

1i.What are HTML lists used for. (1mk)

(22 marks)

2(a). List three (3) examples of Tags (4 marks)

2(b). Briefly explain the following phrases (2mks each)

i) Picture-processing grammars

ii) Precedence grammars

iii) Context-free and context-dependent grammars

iv) Graph grammars

(12 marks)

1. (a) List five characteristics of JAVA programming language to convince software developers to use JAVA as the programming language of choice. (5mks)

3(b)Discuss each of the lines in the program listing below to explain the basic syntax of a simple Java

program (7 mks)

public class MyFirstJavaProgram {

/\* This is my first java program. This will print 'Hello World' as the output

\*/

public static void main(String []args) {

System.out.println("Hello World");

// prints Hello World

} }

(12 marks)

1. (a) Java provides a rich set of operators to manipulate variables. Enumerate six types of operators. (6mks)

b) All Java components require names.

i) Give four key points to remember about java component names (2mks)

ii) Give two examples of valid java component name and two of invalid Java names (2mks)

iii) Enumerate the types of variables in Java (2mks)

5a. Design an HTML form for Secondary School Placement Examination; put suitable headings. The form should get the following six categories of information. (12 mks)

1.- Registration Number 2 - First name 3- Surname

4.- Sex 5- Age 6- Scores in Maths, English, Chemistry

6. Decision making structures have one or more conditions to be evaluated or tested by the program, along with a statement or statements that are to be executed if the condition is true, and optionally, other statements to be executed if the condition is false. Java provides three types of decision making statements.

1. List these statements (3mks)
2. For each statement listed in 5i explain the details of action using UML diagram giving examples where possible (9 mks)