

**National Open University of Nigeria**

**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**

**Faculty of Science**

**NOVEMBER, 2018 EXAMINATIONS**

**COURSE CODE: CIT 467**

**COURSE TITLE: Visual Programming and Applications**

**CREDIT: 3 Units**

**TIME ALLOWED: 2½ Hours**

**INSTRUCTION:Answer Question ONE (1) and any other FOUR (4) Questions**

1. What is Visual Programming Language (VPL)? (2 marks)
2. List four (4) features of OOP (4 marks)
3. List four (4) examples of OOP (4 marks)
4. List any four (4) types of VPL (4 marks)
5. Distinguish between process icons and object icons (2marks)
6. Define the following terms:(1mark each) (6 marks)

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

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

(22 marks)

1. Explain the following OOP concepts (6 marks)

i) Abstraction ii) Polymorphism iii) Encapsulation

1. Briefly describe the formal specification of VPLs. (2marks)
2. Enumerate the type of lists available in HTML. (2 marks)
3. Describe a Software object (1 mark)
4. What are HTML lists used for. (1mark)

(12 Marks)

1. List four (4) examples of Tags (4 marks)
2. Briefly explain the following phrases (2marks each)
3. Picture-processing grammars
4. Precedence grammars
5. Context-free and context-dependent grammars
6. Graph grammars

(12 Marks)

2. List five characteristics of JAVA programming language to convince software developers to use JAVA as the programming language of choice. (5marks)
3. Discuss each of the lines in the program listing below to explain the basic syntax of a simple Java program (7 marks)

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

b. All Java components require names.

1. Give four key points to remember about java component names (2marks)
2. Give two examples of valid java component name and two of invalid Java names

(2marks)

1. Enumerate the types of variables in Java (2marks)

(12 Marks)

1. Design an HTML form for Secondary School Placement Examination; put suitable headings. The form should get the following six categories of information. ( 6 marks)

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

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

1. 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.
2. List these statements
3. For each statement listed in 6(i) explain the details of action using UML diagram giving examples where possible

(6 Marks)

(12 Marks)