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FINAL EXAMINATION

MARCH 2024

COURSE TITLE **FUNDAMENTAL OF PROGRAMMING**

COURSE CODE **RCIT1783**

DATE/DAY **20 JUNE 2024 / THURSDAY**

TIME/DURATION **09:00 AM - 11:00 AM / 02 Hour(s) 00 Minute(s)**

INSTRUCTIONS TO CANDIDATES :

1. Please read the instruction under each section carefully.
2. Candidates are reminded not to bring into examination hall/room any form of written materials or electronic gadget except for stationery that is permitted by the Invigilator.
3. Students who are caught breaching the Examination Rules and Regulation will be charged with an academic dishonesty and if found guilty of the offence, the maximum penalty is expulsion from the University.

(This Question Paper consists of 7 Printed Pages including front page)

DO NOT OPEN THE QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO

This question paper consists of TWO (2) sections in this examination paper. Please answer ALL questions in the answer booklet provided. [60 MARKS]

SECTION A (20 Marks)

There are TWENTY (20) questions in this part of the examination paper. Answer ALL question in the answer booklet.

1. A/An _____ is a program that executes compiled Java code on any platform.

   A. Java Compiler
   B. Java Programming Manual
   C. Eclipse Editor
   D. Java Virtual Machine

2. Which of the Java statement that declares an array?

   A. int marks = 4;
   B. int marks [4];
   C. int marks = 0;
   D. None of the answers.

3. Identify Java datatypes.

   I. char
   II. max
   III. byte
   IV. int
   V. args
   VI. double

   A. II, III, IV and VI.
   B. I, III, V and VI.
   C. I, III, IV and VI.
   D. None of the answers.

4. Identify the Java code to declare a variable of type String and initialize it to "Whatever".

   A. String myOutput = "Whatever";
   B. string myOutput = "Whatever";
   C. String public = "Whatever";
   D. String myOutput = Whatever;

5. Evaluate the following Java expressions, assuming x and y are both declared as integer variables and x = 3 and y = 2. Identify the correct answers.

   A. x / y * 4 = 20
   B. x – y + 3 = 15
   C. x / 3 + y * 2 = 9
   D. x / y + 3 = 4.5

6. The following statement refers to _____.

   --total;

   A. pre increment.
   B. post increment.
   C. pre decrement.
   D. post decrement.

7. The java code statement in **BOLD** referring to _____.

   System.out.print("Enter length of a rectangle: ");
   Scanner input = new Scanner(System.in);
   double length = input.nextDouble( );

   A. input on console.
   B. output on console.
   C. process on console.
   D. none of the answer.

8. Which of the following statement refer to datatype?

   System.out.print("Enter length of a rectangle: ");
   Scanner input = new Scanner(System.in);
   double length = input.nextDouble( );

   A. System
   B. Scanner
   C. input
   D. double

9. What is the usage of the following java statement?

   import java.util.Scanner;

   A. Provide scanner output.
   B. Provide scanner input.
   C. Provide scanner dialog boxes.
   D. None of the answers.

10. Assuming a Scanner object called input that has been instantiated and initialized. Identify the correct scanner input.

    A. int radius = input.nextDouble( );
    B. double radius = input.nextString( );
    C. float radius = input.nextFlot( );
    D. double radius = input.nextDouble( );

11. What is the output when the following Java code fragment is executed?

```
int i = 5, j = 6, k = 7, n = 3;
System.out.println( i + j * k - k % n );
System.out.println( i % n );
```

    A. 46
       3
    B. 46
       5
    C. 46
       2
    D. 46
       9

12. What is the usage of the following java statement?

    JOptionPane.showMessageDialog(null,"Your amount balance is : ")

    A. Input from user.
    B. Output from user.
    C. Calculation from user.
    D. None of the answer.

13. What is the usage of the following java statement?

    import javax.swing.JOptionPane;

    A. Import java frame.
    B. Import java applet.
    C. Import java button.
    D. Import java option pane.

14. Identify types of loops in java programming.

I. if else
II. for
III. while
IV. switch
V. do while

A. I, II and III.
B. I, III and V.
C. II, III and IV.
D. II, III and V.

15. What is the output for the Java code?

```
for(int i=1;i<=2;i++){
        System.out.println("Java programming");
}
```

A. Java programming
Java programming

B. Java programming
Java programming
Java programming

C. "Java programming"
"Java programming"

D. None of the answer.

16. What is the output for the Java code?

```
int i = 1, n = 5;

while(i <= n) {
    System.out.print(i);
    i++;
}
```

A. 5 4 3 2 1

B. 1 2 3 4 5

C. 5
4
3
2
1

D. 1
2
3
4
5

17. What is the output for the Java code?

```
int i=1;
    do{
    System.out.println("Hello world ");
    i++;
}while(i<=2);
```

A. Hello world Hello world

B. "Hello world"
"Hello world"

C. Hello world
Hello world

D. None of the answer.

18. Identify error from the Java code.

int [ ] myList = {1.9, 2.9, 3.4, 3.5};

A. Wrong syntax.
B. Wrong variable name.
C. Wrong data type.
D. None of the answers.

19. Identify error from the Java code initialization.

A. int height = 12.4;
B. int width = 4;
C. int length = 12;
D. char x = 'Z';

20. What is the output of the java coding.

```
String[ ] cars = {"Volvo", "BMW", "Ford", "Mazda"};
System.out.println(cars[3]);
```

A. Volvo.
B. BMW.
C. Ford.
D. Mazda.

SECTION B **(40 Marks)**

There are FOUR (4) questions in this part of the examination paper. Answer ALL question in the answer booklet.

1. Write a Java **conditional** statement that implements the table below, where **grade** is an **integer** and **school** is a **string**. Both variables have been declared and **grade has been initialized to a value greater than or equal to 1**. (10 marks)

If **grade** is:	Set **school** to:
1, 2, 3, 4, 5	Elementary School
6, 7, 8	Junior High
9, 10, 11, 12	High School
> 12	College

2. Write a java programming code that gives an output shown below. **Do not use GUI** (8 marks)

1 1
1 2
2 1
2 2

3. Write a Java programming code that calculates **total** and **average** of **FIVE (5)** marks. Java programming code should include: (12 marks)

   i. Five marks **from user** input.
   ii. Using **looping** statement
   iii. **Do not use GUI.**

4. Write a java programming code that receives an input of PIN number of an ATM machine that loops number **THREE (3)** times. Java programming code should include **looping** statement. **Please use GUI or non GUI.** (10 marks)

***** END OF QUESTION PAPER *****