

**BACHELOR OF COMPUTER APPLICATION
FOURTH SEMESTER
PROGRAMMING WITH JAVA
BCA – 401**

(Use Separate Answer Scripts for Objective & Descriptive)

Duration : 3 hrs.

Full Marks : 70

[PART-A: Objective]

Time : 20 min.

Marks : 20

Choose the correct answer from the following:

1X20=20

- Java is a _____ language
 - Weakly typed
 - Strongly typed
 - Moderate typed
 - None of the above
- toString() method is defined in
 - Java.lang.Object
 - Java.lang.String
 - Java.lang.util
 - None of the above
- Which of the following keyword must be used to monitor for exception?
 - try
 - catch
 - throw
 - finally
- Sleeping thread can be revived by using the method
 - Suspend()
 - Resume()
 - Notify()
 - None of the above
- Determine Output:

```
Public class Test{
public static void main(String args[]) {
    int i;
    for(i=1;i<6;i++){
        if(i>3) continue;
    }
    System.out.println(i + " ");
}
}
```

 - 1 2
 - 1 2 4 5 6
 - 5
 - 6
- The main method should be static for the reason
 - It can be accessed easily by the class loader.
 - It can be accessed by every method or variable without any hindrance
 - It can be executed without creating any instance of the class
 - None of the above

7. Which of these keywords is used to define packages in Java?
 - a. pkg
 - b. Pkg
 - c. package
 - d. Package
8. Which of these functions is called to display the output of an applet?
 - a. display()
 - b. paint()
 - c. DisplayApplet()
 - d. PaintApplet()
9. Which class cannot be sub classed (or extended) in java
 - a. Abstract class
 - b. Final class
 - c. Parent class
 - d. Super class
10. In java _____ can only test for equality, where as _____ can evaluate any type of the Boolean expression.
 - a. switch, if
 - b. if, switch
 - c. if, break
 - d. continue, break
11. The new operator in java
 - a. Returns a pointer to a variable
 - b. Creates a variable called new
 - c. Tells compiler how much memory is available
 - d. Create object and allocates memory
12. What does the AWT stands for?
 - a. Application with types
 - b. A web toolkit
 - c. Absolutely wonderful toolkit
 - d. Abstract windows toolkit
13. Which of the following represents the correct definition of interface?
 - a. interface Shape { void draw() { } }
 - b. interface Shape { void draw(); }
 - c. interface Shape { void draw() } ;
 - d. interface Shape { void draw() }
14. Which of the following methods can be executed more than once in the life cycle of an applet?
 - a. init()
 - b. start()
 - c. destroy()
 - d. stop()
15. Which among the following is the compulsory section of java program?
 - a. Package statement
 - b. Import statement
 - c. Class declaration section
 - d. Documentation section
16. Which of these access specifier must be used for class so that it can be inherited by another sub class?
 - a. public
 - b. private
 - c. protected
 - d. friend
17. The String method compareTo() returns
 - a. true
 - b. False
 - c. An int value
 - d. 1

18. Which of the following is not supported by java?
- a. Global variable
 - b. Abstraction
 - c. Encapsulation
 - d. Polymorphism
19. Java programs are
- a. Platform-dependent
 - b. Interpreter-dependent
 - c. Platform-independent
 - d. Interpreter-Independent
20. Suspend thread can be revived by using
- a. start()
 - b. resume()
 - c. notify()
 - d. yield()

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PART-B : Descriptive

Time : 2 hrs. 40 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. Describe the complete life cycle of a thread with neat diagram 10
2. a. List at least five major differences between C++ and Java. 4+3+3
=10
b. How Java is strongly associated with the Internet?
c. What is class? How does it accomplish data hiding?
3. a. What is token? List the various types of token supported by Java. 3+3+4
=10
b. Compare in terms of their functions, the following pairs of statements:
 - i. While and do....while
 - ii. Break and continue
c. Write a program to find out sum of five numbers using command line arguments
4. a. Define thread with example. 3+7=10
b. Explain the different levels of access protection available in Java.
5. a. Describe different forms of inheritance with example. 4+4+2
=10
b. When do we declare a method or class final and a method or class abstract?
c. Explain how an array is different from vector
6. a. What is a package? 2+4+4
=10
b. Explain different java API packages.
c. Given an example where interface can be used to support multiple inheritance. Develop a standalone Java program for the example
7. a. What do you mean by method overloading and overriding of methods? Explain with a suitable example. 5+5=10
b. Write a program for alphabetical ordering of five user input strings.
8. a. What is an applet? 2+3+5
=10
b. How do applets differ from application programs?
c. Explain the life cycle of an applet with a neat diagram

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