

**BACHELOR OF COMPUTER APPLICATION
FOURTH SEMESTER
PROGRAMMING WITH JAVA
BCA – 16**

(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:

1×20=20

- Which of these keywords is used to make a class?
a) class b) struct c) int d) None of the mentioned
- Which of the following is a valid declaration of an object of class Box?
a) Box obj = new Box() b) Box obj = new Box
c) obj = new Box() d) new Box obj
- Which of these operators is used to allocate memory for an object?
a) malloc b) alloc c) new d) give
- Which of these statements is incorrect?
a) Every class must contain a main() method.
b) Applets do not require a main() method at all.
c) There can be only one main() method in a program.
d) main() method must be made public.
- What is the process of defining more than one method in a class differentiated by method signature?
a) Function overriding b) Function overloading
c) Function doubling d) None of the mentioned
- Which of the following is a method having same name as that of its class?
a) finalize b) delete c) class d) constructor
- Which keyword is used by method to refer to the object that invoked it?
a) import b) catch c) abstract d) this
- Which of these keywords is used to refer to member of base class from a sub class?
a) upper b) super c) this d) None of the mentioned
- What is the process of defining a method in subclass having same name & type signature as a method in its superclass?
a) Method overloading b) Method overriding
c) Method hiding d) None of the mentioned

10. Which of these methods of class String is used to extract a single character from a String object?

- a) CHARAT()
- b) charat()
- c) charAt()
- d) ChatAt()

11. Which of these keywords is used to define packages in Java?

- a) pkg
- b) Pkg
- c) package
- d) Package

12. Which of these functions is called to display the output of an applet?

- a) display()
- b) paint()
- c) displayApplet()
- d) printApplet()

13. Which method will a web browser call on a new applet?

- a) main method
- b) destroy method
- c) execute method
- d) init method

14. Which of the following method can be used to make the main thread to be executed last among all the threads?

- a) sleep()
- b) stop()
- c) notify()
- d) start()

15. What is the default value of priority variable MIN_PRIORITY and MAX_PRIORITY?

- a) 0 and 256
- b) 0 and 1
- c) 1 and 10
- d) 1 and 256

16. Which class cannot be sub classed (or extended) in java?

- a) Abstract class
- b) Final class
- c) Parent class
- d) None of the above

17. Suspend thread can be revived by using

- a) start() method
- b) resume() method
- c) suspend() method
- d) yield() method

18. Command to execute a compiled java program is:

- a) java
- b) javac
- c) run
- d) Execute

19. What does the AWT stands for?

- a) Application with types
- b) A web toolkit
- c) Absolutely wonderful toolkit
- d) Abstract Windows toolkit

20. Which among the following is the compulsory section of java program?

- a) Package Statement
- b) Import Statement
- c) Class declaration Section
- d) Documentation Section

(PART B : Descriptive)

Time: 2 hrs. 40 min.

Marks: 50

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

1. What is class? Explain the different levels of access protection available in Java. (2+8=10)

2. Describe the complete life cycle of a thread with neat diagram. (10)

3. List at least five major differences between C++ and Java. How Java is strongly associated with the Internet? What is the contribution of java to the World Wide Web? (4+3+3=10)

4. What is an interface? Write a java program to find area of rectangle and circle using interface. What is package? Explain Java system packages and their classes. (2+4+2+2=10)

5. What is an applet? Explain local and remote applet. How do applets differ from application programs? Discuss the steps involved in loading and running a local applet. (2+3+3+2=10)

6. Describe the different stages in the life cycle of an applet. Write an applet program that receives two numeric values in two text boxes from the user and then on click on a button it displays the sum in third text box. (4+6=10)

7. a) Write a program to explain the Exception Handling mechanisms in Java using the keywords: try, catch and finally. (5)

b) Write a java program to display a simple moving banner. (5)

8. a) Describe the syntax for standard Applet tag. (5)

b) Explain with an example how call to an overridden method is resolved at run time. (5)
