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(5th Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–501

(Introduction to Java Programming)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

1. *(a)* List four basic parts of method declaration.   2

(b) Write the differences between Java and C.   3

(c) What is token? State and explain different types of token.   5

Or

(d) When to use static member? Write declaration code.   2

(e) What is visibility control? Explain briefly different types of visibility control.   4

(f) Write a short note on a Java Virtual Machine.   4

2. *(a)* What is string? Explain two types of implementing classes of string.   1+2=3

(b) Write a simple program that demonstrates multi-level package.   3

(c) Explain with the syntax of the steps involved in creating an array.   4

Or

(d) Discuss how multiple inheritance is supported by interface with an example.   5

(e) What is interface? Write the general form of an interface definition.   1+1=2

(f) What are the differences between 'class' and 'interface'?   3

3. *(a)* What is an exception? Explain briefly two types of exception. What are their differences?   2+2+1=5

(b) What is error? State and discuss two types of error.   5

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(3)

Or

(c) Define synchronization. When we declare synchronization, how does it work? 3+3=6

(d) What are the differences between multithreading and multitasking? 4

4. (a) What could be the problems when opening a file which is not created? 2

(b) List six operations that can be performed by file class. 3

(c) What are character stream classes? Discuss briefly two types of character stream class. 5

Or

(d) What is the use of iterator? Discuss with an example. 4

(e) What is the usage of collection interface? 3

(f) Differentiate between List and Set. 3

5. (a) How do applets differ from application? 2

(b) State the steps involved in developing and testing in applets. 3

(c) Describe various stages in the life circle of applet. 5

(4)

Or

(d) What are layout managers? What are the basic functionalities of layout managers? 5

(e) Write the importances of Label, Button and text-box control. 3

(f) Write a program that demonstrates the use of scroll bar. 2

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Subject Code :   **V/BCA/501**

Booklet No. A

Date Stamp ....

INSTRUCTIONS TO CANDIDATES

1. The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.

2. This paper should be ANSWERED FIRST and submitted within 1 (one) Hour of the commencement of the Examination.

3. While answering the questions of this booklet, any cutting, erasing, over-writing or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.

2 0 1 7

(5th Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–501

(Introduction to Java Programming)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

1. Tick (✓) the correct answer in the brackets provided :

$1 \times 10 = 10$

   (a) Which of the following methods is the starting point for all Java Programs?

   (i) statec   (   )

   (ii) void   (   )

   (iii) main   (   )

   (iv) args   (   )

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(b) Vectors, hash tables and dates belong to which package?

   (i)   java.applet   (   )

   (ii) java.util   (   )

   (iii) java.awt   (   )

   (iv) java.net   (   )

(c) The compile error occurs when

   (i)   divide by zero   (   )

   (ii) to use –ve size of array   (   )

   (iii) an array's bout of bound   (   )

   (iv) setting wrong path   (   )

(d) Which of the following is used for handling i/o operation on bytes?

   (i)   Writer stream   (   )

   (ii) Byte stream   (   )

   (iii) Character stream   (   )

   (iv) Read stream   (   )

(e) When applet will not able to run, which one of the following executable files is missing?

   (i) .awt   (   )

   (ii) .applet   (   )

   (iii) .javac   (   )

   (iv) .class   (   )

(f) The output of the following code is

     int $X = 14$;
     system.out.print/n $(X + +)$;

   (i) 13   (   )

   (ii) 14   (   )

   (ii) 15   (   )

   (iv) 16   (   )

(g) Which of the following enables Java to support multiple inheritance?

   (i) Implements   (   )

   (ii) Interface   (   )

   (iii) Packages   (   )

   (iv) Final   (   )

(**4**)

(h) Which of the following states is not included in applet life circle?

   (i)   Born state   (   )

   (ii) Stopped state   (   )

   (iii) Destroyed state   (   )

   (iv) Pause state   (   )

(i) Which of the following is not required to run thread?

   (i)   thread object   (   )

   (ii) implements   (   )

   (iii) run() method   (   )

   (iv) start() method (   )

(j) Which of the following algorithms enables us to arrange the elements of list in a certain order?

   (i)   Shuffle algorithm   (   )

   (ii) Sort algorithm   (   )

   (iii) Manipulating algorithm   (   )

   (iv) Search algorithm   (   )

2. Indicate *True (T)* or *False (F)* by a Tick (✓) mark :
<div align="right">1×5=5</div>

(a) Classes can be accessed in the package without public declaration.

<div align="right">(T / F)</div>

(b) Single-line comment is created by -// characters at the end of line.

<div align="right">(T / F)</div>

(c) Vector can hold object of any type.

<div align="right">(T / F)</div>

(d) resume( ) method is invoked in the case of suspend.

<div align="right">(T / F)</div>

(e) The code below will run applet

– CODE = appletname.java.

<div align="right">(T / F)</div>

(**6**)

SECTION—II

(*Marks* : 10)

3. Answer the following questions :   2×5=10

(a)   Define package.

(b) Write the advantages of Java over to other languages.

(c) Differentiate between input stream and reader stream.

(d) What is the job of paint( ) in applet?

(e) How exception handling mechanism can be used for debugging a program?

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