

Seat No. : \_\_\_\_\_

**AA-101**

**April-2019**

**BCA, Sem.-IV**

**CC-210 : Core Java**

**Time : 2:30 Hours]**

**[Max. Marks : 70**

1. (A) Write the following :

- (i) Explain the principles of Object-Oriented Programming Languages. 7
- (ii) Write a short note on :
  - (A) Types of Operators 4
  - (B) Method Overloading 3

**OR**

- (i) Which Java features replace C++ in most of the application development ? 7
- (ii) Write a short note on :
  - (A) Importance of JVM. 4
  - (B) Constructor and its types. 3

(B) Do as Directed. (any **four** out of **six**) 4

- (i) Which of the following is not an object-oriented language ?
  - (A) Simula (B) Java
  - (C) C (D) C++
- (ii) Which command is used to interpret a Java program file ?
  - (A) java (B) javac
  - (C) javap (D) javadoc
- (iii) Which property from the following is correct for constructors ?
  - (A) can not be inherited
  - (B) an <init> method implicitly created
  - (C) Default is inbuilt
  - (D) All of the above
- (iv) Which of these statement is valid ?
  - (A) short s1 = 143; (B) int j1 = '3';
  - (C) double dl = 6.3; (D) float fl = 4.3;

- (v) To perform bitwise ORing, \_\_\_\_\_ operator is used in Java.
- (A) & (B) !  
(C) ~ (D) |
- (vi) Which of the following is true for class product ?
- (A) new product()  
(B) new product(product s)  
(C) new product(int pno, String pname)  
(D) All of the above

2. (A) Write the following :

- (i) "Multiple values can be passed to and returned from method using array." Explain with suitable examples. 7
- (ii) Write a short note on:
- (A) Interface extending 4  
(B) Method Overriding 3

OR

- (i) What is inheritance ? What are its types ? 7
- (ii) Write a short note on:
- (A) Difference between Abstract class and Interface 4  
(B) Command-line arguments 3

(B) Do as Directed. (any **four** out of **six**) 4

- (i) Which statement from the following is correct ?
- (A) `int m[ ][ ] = new int [5] [5];`  
(B) `int [ ] m [ ] = new int [5] [5];`  
(C) `int [ ] [ ] = new int [5, 5];`  
(D) None of the above
- (ii) \_\_\_\_\_ variables and methods are allowed in static method.
- (A) only static (B) only non-static  
(C) static and non-static both (D) static, non-static, final, abstract
- (iii) Which of the following keyword allows deriving members from another class ?
- (A) extends (B) implements  
(C) derives (D) inherits

- (iv) Child class method hides execution of parent class method is an example of \_\_\_\_\_  
 (A) overloading (B) loadingover  
 (C) overbiding (D) overriding
- (v) \_\_\_\_\_ does not permit parent class members to be used further into child classes.  
 (A) super (B) this  
 (C) final (D) Final
- (vi) \_\_\_\_\_ inheritance for classes is not available in Java.  
 (A) simple (B) multiple  
 (C) unique (D) hybrid

3. (A) Write the following:

- (i) Draw Access Protection chart. Explain its use inside and outside package with example. 7
- (ii) What is multi-catch in exception handling ? Explain with example. 7

OR

- (i) What is wrapper class ? Explain any two with suitable examples. 7
- (ii) Explain user defined exception with example. 7

(B) Do as Directed. (any **three** out of **five**) 3

- (i) \_\_\_\_\_ must be included at the top of every java source file.  
 (A) import (B) impact  
 (C) inherit (D) package
- (ii) What is the result of compiling the following code: package pkg1 .pkg2;  
 (A) compile time error (B) runtime error  
 (C) compile but no execution (D) compile and execution
- (iii) \_\_\_\_\_ is the immediate parent class of all exceptions in Java.  
 (A) Exception (B) Throwable  
 (C) Throw (D) Catch
- (iv) \_\_\_\_\_ is always specified after method that does not catch the exception it throws.  
 (A) throw (B) throws  
 (C) finally (D) new
- (v) Which of the following statement will not generate exception ?  
 (A)  $z = x/0$ ; (B) `int a[] = new int[5];a[5]=5;`  
 (C) `a = 10; try{ a = 20;}` (D) None of the above

4. (A) Write the following :
- (i) Which are the two ways of creating threads ? Explain with examples. 7
  - (ii) List methods of Graphics class in applet and explain any two with an example. 7

**OR**

- (i) How Java provides multithreading concept to reduce overall execution time ? 7
  - (ii) Draw Applet Life cycle and explain with suitable example. 7
- (B) Do as Directed. (any **three** out of **five**) 3
- (i) Which package contains all methods and variables of multithreading ?
    - (A) java.thread (B) java.lang
    - (C) java.Object (D) Java-package
  - (ii) Once a thread is created, it enters into \_\_ state.
    - (A) Ready (B) Running
    - (C) New (D) Run
  - (iii) \_\_\_\_\_ has same values for starting and ending co-ordinates.
    - (A) Polygon (B) Polyline
    - (C) Polyrectangle (D) Ploycircle
  - (iv) \_\_\_\_\_ is the method of an applet.
    - (A) init( ) (B) display( )
    - (C) execute( ) (D) None of the above
  - (v) \_\_\_\_\_ class has methods to draw graphical symbols on the applet.
    - (A) Drawing (B) Graph
    - (C) Graphics (D) Image