COA 401 **Reg. No. ……**

CREDIT BASED FOURTH SEMESTER B.C.A. DEGREE EXAMINATION
APRIL 2012
B. C. A.

JAVA PROGRAMMING

Time: 3 Hrs **Max. Marks: 120**

PART – A

Answer any FIFTEEN Questions from the following: **15x2=30**

1. a) List any two C++ features that were intentionally removed from java.
   b) What is the meaning of 'static' in the main ( ) method definition of a java program?
   c) Write the necessary java codes to print "All is well".
   d) Mention any two rules to be followed while declaring variable names in java.
   e) Mention the syntax of declaring symbolic names in java. Give an example.
   f) What is the use of instance of operator? Give an example.
   g) What are the conditions for using 'super' keyword in java?
   h) Write the syntax for defining an array.
   i) List any two advantages of vector over array.
   j) What is an interface? How does it differ from a class?
   k) What are the naming conventions to be followed while giving package names and class names? Identify the package name and class name in the following statement.

      double p = java.long.Math.sqrt(a);

   l) If 'Thread X' is a thread class, write the necessary statement/s to create and run that thread.
   m) In which situations, a thread of low priority will gain the control from a high priority thread?
   n) What are the two types of errors in a java program? Give examples for each.
   o) Why do we need "import" statement? Give an example.
   p) What are local and remote applets? Explain.
   q) Explain any 2 java system packages.
   r) Give the task of any two string Buffer methods.

PART – B

Note: Answer any two questions from each unit:

UNIT – I

2. a) With a suitable diagram explain how java communicates with a web page through <APPLET> tag.
   b) Explain any five types of java statements.

c) Write a note on Relational Operators and Conditional Operators. **(5+5+5)**

3. a) What is JVM? Explain its role in making java 'machine neutral language'.
   b) Write a note on symbolic constants in java.
   c) Explain simple if and if...else statements with suitable examples. **(5+5+5)**
4. a) Explain 'for' statement with its syntax and example.
   b) Write a program to find the number and sum of all integers greater than 50 and less than 150, that are divisible by 11.
   c) Describe with a flowchart, how various java tools are used in the application development. **(5+5+5)**

UNIT – II

5. a) Explain overriding methods with suitable example.
   b) What is a constructor? What are its special properties?
   c) With suitable example, explain how an interface can be used to implement multiple inheritance in java. **(5+3+7)**

6. a) Explain five important string methods in java.
   b) What is a package? Explain its benefits.
   c) Write a note on static members. **(5+5+5)**

7. a) What are the steps involved in the creation of a package? Explain with an example.
   b) Write a java program to create a vector and to store elements.
   c) Write a note on abstract class. **(6+5+4)**

UNIT – III

8. a) What are the two ways of creating threads in java? Explain any one with code example.
   b) List any six common run time errors that a java program may encounter.
   c) Comment on – stopping and blocking a thread. **(8+3+4)**

9. a) Define an exception called "NOMATCH" that is thrown when a string is not equal to "java programming". Write a java program that uses this exception.
   b) How can we set priorities for threads? Explain with an example.
   c) List any 4 differences between applet and stand-alone program. **(6+5+4)**

10. a) Mention the purpose of the following methods in Thread Class.
    (i) start ( ) (ii) wait ( ) (iii) notify ( ) iv) stop ( )
    b) Explain the life cycle of an applet with a neat diagram.
    c) Is it possible to use multiple catch statements in a program? Explain with an example. **(4+6+5)**

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PART – A

Answer any FIFTEEN Questions from the following: **15x2=30**

1. a) What is the purpose of declaring a variable?
   b) What is the output of the following mathematical functions in Java
      i) floor (5.7) ii) ceil (5.7)
   c) Write the syntax of declaring symbolic names in Java. Give an example.
   d) Differentiate between break and continue statement.
   e) Which are the special operators in Java?
   f) Write a note on variable sized array.
   g) Explain the following String Buffer methods in Java
      i) append( ) ii) SetChartAt( )
   h) What is the purpose of wrapper class? Give any 2 examples for wrapper class.
   i) What is the output of the following program code?

```
int m=10, n=30;
while (++m < --n);
system.out.println("m="+m+"n="+n);
```

   j) List the differences between vector and arrays.
   k) What do you mean by instantiating the object? Give an example.
   l) Which are the two methods by which we can create the threads?
   m) Which inheritance is not supported by Java? Why?
   n) What is meant by thread priority? What is its default value?
   o) What is synchronization?
   p) Mention any two API packages with its purpose.
   q) What is an exception? Give an example.
   r) What are local and remote applets?

PART – B

Note: Answer any two questions from each unit:

UNIT – I

2. a) What are separators? Explain various Java separators with example.

7

b) With syntax, explain
   i) conditional operator
   ii) increment and decrement operator
c) Write a note on labeled loops in Java. **(6+5+4)**

3. a) Describe the structure of a Java program.
   b) Explain any five types of Java statements.
   c) Explain do-while statement with syntax and example. **(5+5+5)**

4. a) list any four differences between C++ and Java.
   b) Explain switch statement with syntax and example.
   c) Explain the relational and logical operators. **(4+5+6)**

UNIT – II

5. a) With example, explain any five string methods in Java.
   b) Write a note on nesting of methods.
   c) Explain how multiple inheritance can be achieved in Java. **(5+5+5)**

6. a) Explain any five vector methods with example.
   b) What is inheritance? Explain single inheritance with suitable example.
   c) What do you mean by method overloading? Explain. **(5+5+5)**

7. a) How do you declare and initialize a two dimensional array? Give example.
   b) Explain with an example, how a constructor can be used to initialize the object of a class.
   c) Explain the steps used to create a package with an example. **(5+5+5)**

UNIT – III

8. a) Describe the complete life cycle of a thread with diagram.
   b) With suitable example code, explain how to manipulate multiple catch blocks to handle several exceptions. **(9+6)**

9. a) Explain with diagram, life cycle of an Applet.
   b) How do you block threads? Explain. **(9+6)**

10. a) Using suitable example code, explain how to create threads using the "Runnable" interface.

b) What is finally block? When and how is it created?

c) Write the steps required in developing and testing an Applet.

(6+4+5)

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CREDIT BASED FOURTH SEMESTER B.C.A. DEGREE EXAMINATION
APRIL 2014
B.C.A
JAVA PROGRAMMING

Time: 3 Hrs **Max. Marks: 120**

PART – A

1. Answer any Fifteen questions from the following: **15x2=30**

a. How is Java more secure than other languages?

b. Mention the syntax of declaring symbolic names in Java.

c. Give the differences between a class and an interface.

d. What is type casting? Give an example.

e. What is the use of instance of operator? Give an example.

f. Write Java assignment statements for the following.

i) $K = \sqrt{2}$ ii) $Area = \pi r^2 + 2\pi$

g. What is final class? How to declare a class as final?

h. Give the basic form of class definition.

i. What is the difference between compile-time and run-time errors?

j. Write two differences between while and do while loops.

k. List any two advantages of vector over array.

l. What are the naming convention to be followed while giving package and class names?

m. How does a class method differs from an instance method?

n. What is a package? What is the use of packages?

o. How an applet differs from an application program?

p. What is synchronization?

q. How do you set priorities for thread?

r. What are local and remote applets?

PART – B

Answer any TWO questions from each unit:

UNIT – I

2. a. Explain the steps involved in implementing a stand-alone Java application.
b. What is an operator? Explain the different bitwise operators with example.
c. What is JVM? Explain its role in making Java 'machine neutral language'. **(5+5+5)**

3. a. Explain the switch statement with syntax and example.
b. Write a program to generate the fibonacci numbers up to 50.
c. What are the benefits of enhanced for loop? Explain with example. **(5+5+5)**

4. a. Write short notes on the following;
i) Conditional operator
ii) Increment and decrement operator
b. Explain the while loop with syntax and example.
c. Explain the types of Java statements. **(4+5+6)**

UNIT – II

5. a. Explain the following methods of string/string Buffer classes
i) s.indexOf ('a', 4)
ii) s.compareTo(s1)
iii) s.insert(n, s1)
iv) s.setLength(n)
b. What is an array? How to declare and initialize one and two dimensional array? Give an example for each.
c. Write a note on inheritance. **(4+6+5)**

6. a. What is an interface? Explain the method of implementing an interface with syntax and example.
b. Explain the method of creating a package with example.
c. Write a note on Java API packages. **(6+5+4)**

7. a. Write a program to arrange n names in ascending order.
b. Explain any five vector methods with syntax and example.
c. Explain the overriding methods with suitable example. **(5+5+5)**

UNIT – III

8. a. Explain the applet tag with its syntax.
b. What are the different types of errors? List any four errors in each category.
c. Write a note on thread priority. **(5+5+5)**

9. a. Define an exception called "overflowException" that is thrown when the sum of two integer exceeds 400. Write a program segment that uses this exception.
b. How do you provide interactive input to applet? Explain.
c. Why do we need to use applets? How applets differ from applications? **(5+5+5)**

10. a. Explain the life cycle of an applet with neat diagram.
b. Write a note on various sections of a web page.
c. Which are the steps involved in creative an applet? **(6+4+5)**

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COA 401 Reg. No. ……

CREDIT BASED FOURTH SEMESTER B.C.A. DEGREE EXAMINATION
APRIL 2015
B.C.A
JAVA PROGRAMMING

Time: 3 Hrs **Max. Marks: 120**

PART – A

1. Answer any Fifteen questions from the following: **15×2=30**

a. Why is Java called as a platform independent language?
b. List any two rules for creating identifiers in Java.
c. What are the conditions for using 'super' keyword in Java?
d. Give the default values of integer and Boolean variables in Java.
e. Mention any two differences between Java and C++.
f. What is the purpose of instance of operator? Give an example.
g. What is the difference between entry controlled and exit controlled loops?
h. How do you add and delete an element to/from a specified position of a vector?
i. What is a constructor? Give an example.
j. What is the difference between protected and private variables?
k. Given [illegible] determine the value of

i) [illegible] ii) $a < c \;\&\&\; b == c \,||\, b < a$

l. What is an error? How does it differ from an exception?
m. Why do we call a thread as light-weight process?
n. What is the special feature of StringBuffer class?
o. Why do we need 'import' statement? Give an example.
p. What is the use of wrapper classes?
q. What are local and remote applets?
r. How does an applet differ from an application program?

PART – B

Answer any TWO questions from each unit:

UNIT – I

2. a. Explain any three features of Java language.
b. Write a note on relational and logical operators in Java.
c. Describe the classification of Java statements. **(6+4+5)**

3. a. Explain the structure of a Java Program.
b. Which are the different types of Java variables? Explain.
c. Explain the nested if..else statement with an example. **(5+5+5)**

4. a. Explain the do loop with syntax and example.
b. Write a program to find the sum of even numbers from 50 to 100.
c. Write a note on labeled break and labeled continue statements. **(5+5+5)**

UNIT – II

5. a. Explain any five string methods in Java.
b. What are the advantages of vectors over arrays? What is the constraint on using a vector?
c. Explain overriding of methods with suitable example. **(5+5+5)**

6. a. What is a package? Explain the method of creating a package with an example.
b. Write a note on inheritance.
c. With suitable example, explain how an interface can be used to implement multiple inheritance in Java. **(5+4+6)**

7. a. Write a program to create a vector and store the elements.
b. Write a note on abstract class.
c. Explain the different package access protection modifiers. **(5+4+6)**

UNIT – III

8. a. What is an exception? Explain any five common Java exceptions.
b. Explain the life cycle of a thread with a neat diagram. **(6+9)**

9. a. Write a note on thread priority.
b. List any four differences between an applet and stand-alone program.
c. Explain the life cycle of an applet with a neat diagram. **(5+4+6)**

10. a. What do you mean by synchronization?
b. How to create a thread using runnable interface? Explain with an example.
c. What are multiple catch-blocks? Explain with an example. **(5+5+5)**

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COA 401 Reg.No. .....

CREDIT BASED FOURTH SEMESTER B.C.A. DEGREE EXAMINATION APRIL 2016

B.C.A

JAVA PROGRAMMING

Time: 3 Hrs **Max. Marks: 100**

PART – A

1. **Answer any 11 questions from the following:** 11x2=22
   a. What is byte code?
   b. What is a java token? Give two examples.
   c. What is the purpose of instanceof operator?
   d. Write the syntax of switch statement in Java.
   e. How is a one dimensional array defined in Java? Give an example.
   f. What is an abstract class?
   g. When do we declare member of a class as static?
   h. What is a wrapper class?
   i. How is interface defined in Java?
   j. what is a Thread?
   k. What is an exception? Give an example.
   l. How do you allocate priority for a thread? What is the default priority?
   m) What is a remote applet?

PART – B

Answer any TWO questions from each unit:

UNIT – I

2. a. With a suitable diagram explain how java communicates with a web page through *< APPLET >* Tag.
   b. Explain the six basic data types in Java.
   c. List and explain any five major differences between Java and C. **(5+3+5)**

3. a. What is JVM? Explain its role in making Java a machine independent language.
   b. Explain any five types of java statements.
   c. Explain the if and if ...else statement with suitable examples. **(5+5+3)**

4. a. What is command line argument? Write a program to receive input as command line arguments and display the same.
   b. Write a note on relational and logical operators in Java.
   c. Describe with a flow chart, how various Java tools are used in application development. **(5+4+4)**

UNIT – II

5. a. What do you mean by overloading of methods? Explain with a suitable example.
   b. What is package? How is a package created in Java? Explain.
   c. List and explain the different access specifier keywords in Java. **(4+5+4)**

6. a. What is a Class? How are objects created from a class? Explain with a suitable programming example.
   b. Explain any three string methods in Java with examples.
   c. What is inheritance? Explain the different forms of inheritance? **(5+3+5)**

7. a. Write a Java program to create a vector and to store elements in it.
   b. What is overriding of methods? Explain with a suitable example.
   c. List any three Java API packages and its contents. **(5+5+3)**

UNIT – III

8. a. Which are the different ways of creating threads in Java? Explain any one method with code example.
   b. Briefly explain the life cycle of an applet with a neat sketch.
   c. Write a short note on exception handling mechanism. **(5+5+3)**

9. a. How is an applet created in Java? Explain the steps.
   b. With a a neat sketch briefly explain the life cycle of a thread.
   c. List and explain any three built-in exceptions in Java. **(4+6+3)**

10. a. List and explain any four thread methods.
    b. How can we pass parameters to an applet? Explain with a code example.
    c. Is it possible to use multiple catch statements in a program? Explain with an example. **(4+5+4)**

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