TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT
Office of the Dean
2015

Full Marks: 40
Time: 2 hrs

BIM / Third Semester / IT 216: JAVA Programming - I

Candidates are required to answer the questions in their own words as far as practicable.

Group "A"

[10 x 1 = 10]

Brief Answer Questions:

1. What is JVM?
2. What is operator? List arithmetic operators.
3. Differentiate between interface and base class.
4. Write syntax of switch case statement.
5. What is wrapper class?
6. Define thread.
7. What do you mean by enumeration?
8. How constant variable is declared in Java?
9. What is garbage collection?
10. What is method overriding?

Group "B"

Exercise Problems:

[5 x 4 = 20]

11. Write a Java program to display all the even numbers from 1 to 500.
12. Make a thread using runnable interface to display number from 1 to 20; each number should be displayed in the interval of 2 seconds.
13. Write a program that reads line of text from keyboard and write to file. Also read the content of the same file and display on monitor.
14. Make class "Rectangle" with attributes length and breadth. The class contains methods ComputeArea and displayArea. Write a program with main method that creates two objects of Rectangle class and find their areas and display area of larger rectangle.
15. Make an interface named num with two functions int add(int x, int y) and int diff(int x, int y) then make a class that implements that interface num.

Group "C"

Comprehensive Answer Questions:

[2 x 5 = 10]

17. What is exception? Explain nested try-catch statement with example.
18. Define package? Write down steps to create package. Explain with example.

TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT
Office of the Dean
2016

Full Marks: 40
Time: 2 hrs

BIM / Third Semester / IT 216: JAVA Programming - I

Candidates are required to answer the questions in their own words as far as practicable.

Group "A"

Brief Answer Questions:

[10 x 1 = 10

1. What is an operator? List out some of the arithmetic operators.
2. What are the uses of parenthesis?
3. What is right shift operator?
4. Define multithreading
5. Why Java is called platform neutral language?
6. Differentiate between superclass and subclass.
7. What is reflection in Java?
8. What do you mean by enumeration?
9. How does Java support multiple inheritance?
10. What difference do you find between "final" and "finally" keywords?

Group "B"

Exercise Problems:

[5 x 4 = 20]

11. Make an array of integers of size 30, store 30 integers, then display integers that are between 16 and 47.
12. Create two classes ThreadA and ThreadB which implements Runnable interface. ThreadA displays all even numbers from 50 to 100 and ThreadB displays all odd numbers from 100 to 200. Define a main class which creates the objects of the both the classes and displays the numbers as per the above mentioned specifications.
13. Create an interface called Calculate which has methods int add(int x, int y) and int diff(int x, inty) to perform addition and subtraction of numbers passed as arguments. Then define a class that implements interface calculate.
14. Define String array of size 4 and store name of 4 students. Then display the names of students whose name has character t.
15. Write a program that displays content of folder named database stored in d: drive.

Group "C"

Comprehensive Answer Questions:

[2 x 5 = 10]

16. Explain dynamic polymorphism with example
17. . What is exception? Write a program to catch the ArrayIndexOutOfBounds exception.

TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT
Office of the Dean
April - May 2017

Full Marks: 40
Time: 2 hrs

BIM / Third Semester / IT 216: JAVA Programming - I

Candidates are required to answer the questions in their own words as far as practicable.

Group "A"

Brief Answer Questions:

1. Define recursion.
2. Why is Java known as a strongly typed language?
3. Differentiate between private and public constructor.
4. Why identifiers can't be used as keywords?
5. What is the role of JVM?
6. List out 3 OOP principles.
7. What is the use of finalize() method?
8. What are the different thread states?
9. How can variable length arguments be helpful?
10. Define auto-boxing.

Group "B"

Exercise Problems:
[5 x 4 = 20]

11. Write a Java program that asks the user to enter numbers in an array of size 'n'. Then displays only the numbers that are divisible by 2 and 3.
12. Create a class Student with instance variables roll_no and two methods to read and display the roll no. Then, create another class Test that inherits class Student, consisting of its own instance variables to hold the marks of two subjects and also methods to read and display the marks. Finally, create another class Result which inherits class Test. It also has its own instance variable total to hold the total of two marks scored by the student. Similarly, it has methods to calculate and display the total. Create some instances of above classes and demonstrate inheritance.
13. Create an interface Shape which has methods get_data() and display_area(). Create two classes Rectangle and Square which implements this interface. Define the instance variables of these classes as per requirement in class itself. Create some instances of Rectangle and Square classes and demonstrate interface implementation by classes.
14. Define a string array of size 10 and store 10 countries' name in it. Then list name of countries that ends with letter 'a'.
15. Write a program to take employee id, name, address, DOB and phone number from user and then store it in a file called "Emp.txt". Also display the contents of "Emp.txt".

Group "C"

Comprehensive Answer Questions:
[2 x 5 = 10]

16. What is multithreading? Write a program to demonstrate multithreading in Java.
17. Explain user defined exception in Java with a suitable example.

TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT
Office of the Dean
March - April 2018

Full Marks: 40
Time: 2 hrs

BIM / Third Semester / IT 216: JAVA Programming - I

Candidates are required to answer the questions in their own words as far as practicable.

Group "A"

Brief Answer Questions: **[10 x 1 = 10]**

1. What is the significance of package?
2. List out any 4 features of Java Programming Language.
3. Why java is called architecture neutral language?
4. How has the concept of exception handling helped Java to be robust?
5. Differentiate between constructor and method.
6. What is the advantage of variable length argument?
7. What is the use of Serialization process?
8. What are the uses of "extends" and "implements" keywords?
9. How does interface differ from abstract class?
10. Define Autoboxing.

Group "B"

Exercise Problems: **[5 * 4 = 20]**

11. Write a program that asks the user to enter elements in a matrix of size m x n and then display the sum of elements.
12. List the two ways to create a Thread. Discuss the life cycle of Thread.
13. Create an abstract class called Fmachine, having methods getdata() and putdata(). Derive a class Airplane, having instance variables code, name, capacity and methods getdata() and putdata() (that overrides Fmachine's getdata() and putdata() to read and display the result. Create some instances of Airplane and call the required methods.
14. Write a program to create a string array of size 'n' and prompt the user to enter 10 names in it.Then you are required to replace all 'i' with '!' and display the result.
15. Write a program that asks the user to enter his/her name, address and college and store it in a file called "student.txt". Then copy the contents of "student.txt" to "pupil.txt". Also display the contents of "pupil.txt".

Group "C"

Comprehensive Answer Questions: **[2 x 5 = 10]**

16. Define exception. Explain how try with catch is different from try with finally with suitable examples.
17. What is multiple inheritance? Write a program that demonstrates how multiple inheritance is achieved in java.

BIM / Third Semester / IT 216: JAVA Programming - I

Candidates are required to answer all the questions in their own words as far as practicable.

Group "A"

Brief Answer Questions: *[10 × 1 = 10]*

1. What is a bytecode?
2. List out the principles of Object Oriented Programming Language.
3. Why can't keywords be used as identifiers?
4. Write uses of '+' operator.
5. How does a default constructor differ from parameterized constructor?
6. How does final differ from finally?
7. What is the importance of synchronization in multi-threaded programs?
8. Which class is the super class of all classes?
9. Differentiate between FileWriter and PrintWriter.
10. What is enumeration?

Group "B"

Exercise Problems: *[5 × 4 = 20]*

11. Write a program to get sum of 10 numbers.

12. Create an interface called Number with two functions int square(int x) and int cube(int x). Then create a class called NumberDemo which implements Number interface and overrides int square(int x) and int cube(int x). Then, create some instances of NumberDemo and demonstrate interface implementation by class.

13. Create a class Book with member variables book_id and pages. Then create a subclass FictionBooks of Book with member variable called name. Create some instances of FictionBooks class and set the values of both subclass and superclass and display all member variables that have been initialized.

14. Write a program that asks the user to enter names of any 7 countries. Then the user is required to count and display those countries that ends with a vowel.

15. Create a file called "College.txt" and then store basic information about college like college name, address and number of students enrolled in it. The user is required to enter information of 3 different colleges.

Group "C"

Comprehensive Answer Questions: *[2 × 5 = 10]*

16. Explain how priorities can be assigned to threads with appropriate examples.

17. With suitable example, verify the statement "Inner class can access all property of Outer class, but vice versa is not possible".

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