Candidate No: _____

KADI SARVA A VISWAVIDHYALAYA

MCA Semester-I

Subject Code: MC 01 Subject Name: Java Programming

Date: 2-1-2014 **Time: 10:00 AM to 01:00 PM** **Total Marks: 50**

Q-1 Answer the following question. **[10]**

1. Explain Constructors and role it plays in creating class and objects.
2. What is Exception? How we can handle it in program. Explain with suitable example.

Q-2 Answer the following question. **[10]**

[A] Answer the following Objective question. **[05]**

1. Adding two byte data will produce _____ type of data.
2. _____ keyword is used to prevent method from overriding.
3. To inherit an interface from another interface _____ keyword is used.
4. Java is owned by _____ [Sun / Microsoft / Oracle/ IBM]
5. JRE stands for _____.

[B] Answer the following question. **[05]**

1. What is String? What is difference between following two ways of creating String
   String x = "Java"
   String y = new String("Java")

2. Explain StringBuffer. Which is better String or StringBuffer explain.

[OR]

1. Write a program to extract string "java" from a given string "I love Java" and also print total number of vowels.

Q-3 Answer the following question. **[10]**

1. Explain Thread Life Cycle.
2. Explain the use of File in Java with example.

[OR]

1. Explain how can we avoid the deadlock in threads.
2. Differentiate Byte Stream and Character Stream.

Q-4 Answer the following question. **[10]**

1. Explain main methods in Applet Life Cycle?
2. Explain Event Delegation model.

[OR]

1. Explain applet tag with all its attributes and usage.
2. Explain CheckBox and CheckBoxGroup with example.

Q-5 Answer the following question. **[10]**

1. What is Collection Framework? Explain in detail.
2. Differentiate List and Set interfaces in Collection Framework.

[OR]

1. What is Hash Table explain with suitable example.
2. Write a program to demonstrate the use of ArrayList.

---------- **All the Best** ----------

KADI SARVA VISHWAVIDYALAYA
MCA Semester-I ATKT EXAMINATION
MC 01 Fundamentals of Programming

8-4-13 **Marks: 50**

Q-1. Differentiate between: [10]

1. Operator and Operand.
2. Structure and Union.
3. strcpy () and strncpy ().
4. Call by Reference and Call by Value.
5. Entry and Exit Controlled Loop.

Q-2. (A) State whether true or false: [06]

i) Goto is preferable in C Language.

ii) Variable names in C are not case-sensitive.

iii) Recursion is when the function calls another separate function.

iv) Register storage class is applicable only for global variables.

v) gets() is used to input a single character.

vi) All the members of the Union has different storage locations.

Q-2. (B) Answer in two or three sentences: [04]

1. Explain any two file handling functions.
2. Give syntax and example of any two string manipulation functions.

OR

1. Differentiate between malloc() and calloc().
2. What is Recursion? Why is it used?

Q-3. Explain the following: [10]

1. Explain the steps of compiling and linking a C program.
2. Explain any two looping statements with relevant example.

OR

1. Explain switch statement with example.
2. Explain the storage class of a variable in C.

Q-4. Answer the following questions: [10]

1. Why are functions used? Explain types of functions.
2. Write a short note on Operators in C.

OR

1. Explain Pointers in C.
2. Why are Structures required? Explain Structures in C.

Q-5. Explain the following: [10]

1. Write a program in C to find the maximum and minimum numbers in an array using functions.
2. Write a program in C to find the sum of diagonal elements in a matrix.

OR

1. Write a program in C to print the first n Armstrong numbers. e.g. 153 is an Armstrong number $1^3 + 3^3 + 5^3 = 153$
2. Write a program in C to perform Matrix Multiplication.