

MCA (Revised) / BCA (Revised)

Term-End Examination

MCS-024 : OBJECT ORIENTED TECHNOLOGIES AND JAVA PROGRAMMING

Time : 3 Hours]

[Maximum Marks : 100

(Weightage 75%)

Note: Question number 1 is compulsory. Answer any three questions from the rest of the questions.

1. (a) What do you understand by "method overloading"? How it is different from "method overriding"? Give suitable example for each. 5
- (b) What is the purpose of setting class path? How it supports the execution of Java program? Write the steps, performed to set the class path. 5
- (c) What do you mean by "garbage collection" in Java? Give advantages and disadvantages of garbage collection. 5



- (d) What is interface in Java? Write a java program to exhibit, how to define and implement interface. 5
- (e) What are the uses of "this" keyword in java? Explain with the help of an example. 5
- (f) What is byte code? Explain the difference between compiled code of Java and compiled code of C. 5
- (g) Write a program in Java to convert the string "IGNOU" in lower case i.e. "ignou". Give suitable comments in your code, to increase the readability. 5
- (h) What is an abstract class? How it is used to impliment polymorphism in Java? 5
2. (a) Explain the life cycle of applet, with suitable diagram. 5
- (b) Write a program in Java that reads text from the key board and writes it to a ".txt" file. Incorporate suitable comments in your program, to improve the readability of your logic. 7

- (c) Explain "<<", ">>" and "&" bitwise operators in Java. Write a Java program to perform "<<" bitwise operator on a given number. 8
3. (a) What is container (in context of java)? Explain the significance of container in Java GUI program. 5
- (b) What is stream tokenizer in Java? What is its significance ? Discuss the instance variables defined in streamtokenizer? Give an example to show the use of streamtokenizer. 7
- (c) Write a client & server programs in Java to show the TCP connection establishment and data transfer. 8
4. (a) Write a JAVA program to draw a color filled line and a color filled rectangle. 5
- (b) Explain the term RMI in Java. Briefly discuss the steps involved in creation of stub and skeleton. 7
- (c) Discuss the concept of multithreading in Java. What are the advantages of multithreading? Explain the interthread communication with the help of an example.

5. (a) What do you understand by "exception", in context of Java? How it is handled, explain with the help of suitable example code in Java? 5
- (b) What is a layout manager? Briefly discuss the role of layout manager in Java. Explain the flow layout and grid layout with the help of an example for each. 7
- (c) Differentiate between any two of the following: 8
- (i) String class and stringBuffer class
 - (ii) Throw statement and throws statement
 - (iii) Final and Finally

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