

**MCA-16**  
December - Examination 2016  
**MCA IInd Year Examination**  
**Programming in JAVA**  
**Paper - MCA-16**

**Time : 3 Hours ]**

**[ Max. Marks :- 80**

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**Note:** The question paper is divided into three sections A, B and C.

**Section - A**

**8 × 2 = 16**

(Very Short Answer Questions)

**Note:** Answer **all** questions. Limit to 30 words.

- 1) (i) What is object in Java? Define it.
- (ii) What is instance variable?
- (iii) What is Java Runtime Environment?
- (iv) Why is Java called a platform independent language?
- (v) What is the output of the following code:  

```
for(int i = 0 ; i <=5 ; i++)  
    system.out.println("Java");
```
- (vi) What is object cloning?
- (vii) What is method overloading?
- (viii) What is the difference between abstraction and encapsulation?

**Section - B****4 × 8 = 32**

(Short Answer Questions)

**Note:** Answer **any four** questions. Limit is 200 words.

- 2) Explain relational and logical operator and show the precedence of all operators.
- 3) Explain three tier client-server JDBC Architecture.
- 4) What are Resultset and prepared statement?
- 5) Write a program to take input as length and width of a rectangle and calculate the area of rectangle.
- 6) What do you understand by Event handling? Discuss.
- 7) What are stream classes? Describe any two predefined streams.
- 8) What is the role of JVM and JDK in Java?
- 9) What is final and abstract keyword? Give suitable example.

**Section - C****2 × 16 = 32**

(Long Answer Questions)

**Note:** Answer **any two** questions. Limit 500 words.

- 10) Explain basic features of OOPs with suitable example.
- 11) Explain the life cycle of Applet with diagram. Also explain AWT components.
- 12) What is JDBC? Explain how SQL statements are written and executed in JAVA (write the basic steps of JDBC).
- 13) What is an exception? Explain any three exception types with suitable example.