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Total No. of Pages : 02

Total No. of Questions : 18

MCA (2015 to 2018) (Sem.-3)**JAVA PROGRAMMING****Subject Code : MCA-304****M.Code : 74076****Time : 3 Hrs.****Max. Marks : 60****INSTRUCTIONS TO CANDIDATES :**

1. **SECTIONS-A, B, C & D** contains **TWO** questions each carrying **TEN** marks each and students have to attempt any **ONE** question from each **SECTION**.
2. **SECTION-E** is **COMPULSORY** consisting of **TEN** questions carrying **TWENTY** marks in all.

SECTION-A

- 1) What is meaning of access control of variables and functions in java? Explain the different access control mechanisms in java with the help of a suitable program.
- 2) Why is the need of JVM in execution of any java program? Discuss the structure of any Java program.

SECTION-B

- 3) What are packages? How packages are created and accessed in java and also briefly discuss the naming conventions used in packages?
- 4) What are different types of exceptions in java? Explain the exception handling mechanism in particular to handling multiple exceptions with the help of a suitable program.

SECTION-C

- 5) Define applet. How applet is different from application? Write a java program to create an applet which will have a line, an Oval & a Rectangle using different graphics class functions.
- 6) What is JDBC? Write a pseudo code program in java for connecting front end application with the backend database.



**SECTION-D**

- 7) What are java sockets? Discuss the different methods of creating connection and connectionless sockets in java with the help of suitable program.
- 8) What are servlets? Discuss Servlet life cycle along with compilation and deployment of servlet with the help of a simple program.

SECTION-E

- 9) What are advantages of Java programming over C++?
- 10) What is byte code?
- 11) Give one example of type casting in java.
- 12) Define Runnable Interface.
- 13) What are characteristics of static members in java?
- 14) Define Generic Servlet.
- 15) Why do we use JSP?
- 16) Which function is used for rotation transformation in JAVA?
- 17) Define Event Handling.
- 18) Which tag in HTML is used to pass the parameters in applet?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

