[6003] - 381

T.E. (Electronics/E&TC)

FUNDAMENTALS OF JAVA PROGRAMMING

(2019 Pattern) (Semester - 1) (Elective - I) (304185 C)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to candidates:

1) *Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, and Q.7 or Q.8.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Fugures to the right indicate full marks.*
4) *Assume suitable data, if necessary.*

Q1) a) What is method overriding? Explain the rules to be followed while method overriding. **[9]**

b) Explain the concept of an array. How to declare an array in Java? Compare arrays in C and Java. **[9]**

OR

Q2) a) What is the meaning of inheritance in Java? Explain each type of inheritance with the help of suitable example and diagram. **[9]**

b) Write a Java program to implement multilevel inheritance with three levels of hierarchy. **[9]**

Q3) a) What is a Package in Java? With suitable example, explain various ways to access a package from another package. **[9]**

b) What is meant by an interface? What is the need of an interface in Java? Write syntax and features of an interface. **[8]**

OR

Q4) a) Explain various forms of implementing an interface in Java. How multiple inheritance is supported in Java? **[9]**

b) What are the advantages of packages in Java? List and explain various Java API packages. **[8]**

P.T.O.

Q5) a) What are the types of errors that occur in a Java program? Write a Java program to handle arithmetic exception. **[9]**

b) Explain life-cycle of a thread. What are the ways to create a thread in a Java program? **[9]**

OR

Q6) a) What are applets and applications in Java programming? Write a simple Java program for an applet. **[9]**

b) With reference to exception handling, explain the terms try, catch and throw. **[9]**

Q7) a) What are stream classes in Java? List and explain the methods of Byte Array Output Stream class. **[9]**

b) Write a Java program using Swing to create and display JTextArea on a JFrame. **[8]**

OR

Q8) a) What is AWT in Java? Explain the limitations of AWT. How events are handled in AWT components. **[9]**

b) Explain the methods of file input stream and file output stream classes in Java. **[8]**

❅ ❅ ❅

[6003] - 381 2