

MCA–16/M. Sc(IT)–13

Programming in Java

Master of Computer Applications/

Master of Science in Information Technology

(MCA/MSc.IT–11/12/16/17)

Fourth Semester, Examination, 2017

Time : 3 Hours

Max. Marks : 80

Note : This paper is of **eighty (80)** marks containing **three (03)** sections A, B and C. Learners are required to attempt the questions contained in these sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section ‘A’ contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. (a) What is an exception ?
(b) What is a finally block ? When and how it is used ?
(c) How do we define a try block ?
(d) How do we define a catch block ?

2. Explain the following using suitable example :
 - (a) Java Token
 - (b) Abstract classes
 - (c) Keyword
 - (d) Predefined streams
3. Explain the various levels of access protection available for packages and their implications.
4. (a) What are the different types of JDBC driver ? Briefly discuss each of them.
(b) Discuss 2-tier and 3-tier client server model.

Section-B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer *four* (04) questions only.

1. What is an interface ? Write the general format of declaring an interface.
2. Explain the use of Applet Class.
3. Differentiate between swing and AWT component.
4. What is a stream class ? How are the stream classes classified ?
5. Write a Java program to sort 'n' number.
6. What is type casting ? Why is it required in programming ?
7. What is constructor ? What are its special properties ?
8. (a) What is a vector ? How is it different from an array ?
(b) How does String Class differ from a String Buffer Class ?

Section-C**(Objective Type Questions)**

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

1. What is the range of short data types in Java ?
 - (a) – 128 to 127
 - (b) – 32768 to 32767
 - (c) – 2147483648 to 2147483647
 - (d) None of the mentioned
2. Decrement operator, —, decreases value of variable by what number ?
 - (a) 1
 - (b) 2
 - (c) 3
 - (d) 4
3. Which of these keywords is used to make a class ?
 - (a) class
 - (b) struct
 - (c) int
 - (d) None of the mentioned
4. Which of these are selection statements in Java ?
 - (a) if()
 - (b) for()
 - (c) continue
 - (d) break
5. Which of these keywords is used to refer to member of base class from a subclass ?
 - (a) upper
 - (b) super
 - (c) this
 - (d) None of the mentioned

6. Which of the following is correct way of importing an entire package 'pkg' ?
- (a) import pkg.
 - (b) Import pkg.
 - (c) import pkg.*
 - (d) Import pkg.*
7. Which of these is necessary to specify at time of array initialization ?
- (a) Row
 - (b) Column
 - (c) Both Row and Column
 - (d) None of the mentioned
8. Which of these keywords must be used to inherit a class ?
- (a) super
 - (b) this
 - (c) extent
 - (d) extends
9. Which of these is used to access member of class before object of that class is created ?
- (a) public
 - (b) private
 - (c) static
 - (d) protected
10. Which of the process by which we can control what parts of a program can access the members of a class ?
- (a) Polymorphism
 - (b) Abstraction
 - (c) Encapsulation
 - (d) Recursion