

PG CBCS
M.Sc. Semester-II Examination, 2022
Computer Science
PAPER: COS-203

Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

The figures in the right-hand margin indicate full marks.
 Candidates are required to give their answers in their own words as far as practicable.

COS 203:M-I : OOPS with Java

Marks: 20**GROUP-A****Answer any two question:****2×2=4**

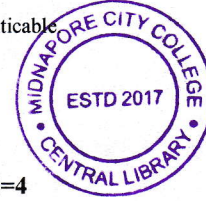
1. Discuss the significance of static keyword in java.
2. Write an applet program to display a text and any figure using all necessary function.
3. Write the difference between method overloading and method overriding.
4. Explain the concept of polymorphism in java.

GROUP-B**Answer any two questions:****2×4=8**

1. Discuss the properties of object oriented programming with example.
2. Briefly explain exception handling mechanism using try, catch and finally.
3. Briefly explain access modifier and their uses with help of a JAVA program.
4. Explain abstract class and its difference with interface with help of a JAVA program.

GROUP-C**Answer any one questions:****1×8=8**

1. i) What is multithreading? Discuss how multithreading application is created and used in java with example. 2+4
- ii) Discuss four String handling function used in java. 2
2. i) How to create and import package in java. 2
- ii) Describe the uses of this and final keyword in java. 2
- iii) Illustrate inheritance properties in OOPs. 2
- iv) Explain JVM. 2

[P. T. O.]

[2]

COS 203 M2: R Programming

Marks: 20

GROUP-A

Answer any two question:

2×2=4

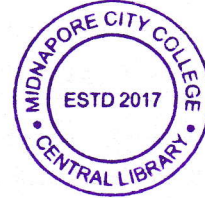
1. Give the characteristics of data storage format and control structure in R.
2. Write down some advantage and disadvantage about R.
3. What are the different objects in R?
4. Give examples of while and for loop in R.

GROUP-B

Answer any two questions:

2×4=8

1. State the features of R Language.
2. Explain with example about the vector.
3. What is data frame? Give an example.
4. Describe about the Boxplot.



GROUP-C

Answer any one questions:

1×8=8

1. Which matrix operations are applicable to data frames? Explain with example.
2. What effect does concatenate function has on vectors? Explain with example.
