

University of Engineering & Management, Kolkata 2nd Term Examination, November, 2022

Programme Name: B.Tech (CSE / CSE (AIML) / CSE (IOT, CYS, BCT))

Semester: 3rd

Course Name: Object Oriented Programming using JAVA

Course Code: PCCCS302

Full Marks: 30

Date: 2nd November, 2022

Time: 09:30 am to 10:30 am

GROUP - A (10 marks)

Answer the following questions. Each question is of 2 marks

 $5 \times 2 = 10$

- 1. i) Design a java code to create a substring from a string using substring() method.
 - ii) Define Package in JAVA. List 4 defined packages in JAVA.
 - iii) Examine the purpose of Static methods and static variables.
 - iv) Can we use this() and super() both in a constructor?
 - v) In a class implementing an interface, can we change the value of any variable defined in the interface?

GROUP - P (10 marks)

Answer any two of the following questions. Each question is of 5 marks

 $2 \times 5 = 10$

- 2. "Constructors cannot be inherited or overridden but can be overloaded"- Do you agree with this statement? Explain it with proper example.
- 3. Sketch and describe the life cycle of Thread.
- 4. Describe is ArrrayIndexOutOfBounds Exception with an example (Code).

GROUP - C (10 Marks)

Answer any one of the following questions. The question is of 10 marks

 $1 \times 10 = 10$

- 5. Why abstract methods are to be implemented in the subclass? Explain with an example (Code).
- 6. What is the concept of dynamic method dispatch in java? Develop a java code to implement dynamic method dispatch.
