

2025

COMPUTER SCIENCE — GENERAL

Paper : DSE-B-2

(Object Oriented Programming)

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer **question no. 1** and **any four** questions from the rest.

1. Answer **any five** questions : 2×5
- (a) State two differences between class and object.
 - (b) What do you mean by portability of language?
 - (c) Explain multilevel inheritance with an example.
 - (d) When is finally keyword used?
 - (e) State one advantage of use of package. Name any two Java packages.
 - (f) What is the purpose of this keyword?
 - (g) State differences between String and StringBuffer class.
 - (h) Name and explain a function that replace character(s) in a string.
2. (a) Explain different uses of static variable and static method.
(b) What do you mean by garbage collection?
(c) Write a program in Java that checks an input string is palindrome or not. 4+2+4
3. (a) What is constructor overloading? How is it achieved in Java?
(b) Discuss the role of constructors in inheritance with a Java program. (2+3)+5
4. (a) What is a copy constructor in Java?
(b) How does it differ from assignment and cloning?
(c) Write a Java program to implement a copy constructor for a class book having attributes like title, author, and price. 2+2+6

Please Turn Over

(2429)

5. (a) What are nested classes in Java?
(b) Explain the types of nested classes with examples.
(c) What is the difference between a nested class and an inner class in Java? Explain with examples. 2+4+4
6. (a) Explain different functions used in multithreading.
(b) What is the purpose of super keyword?
(c) Find the output of the following code snippet :

```
String s="Hello";  
for (int i=s.length();i>0;i--)  
    System.out.println(i + "."+s.charAt(i-1));
```

4+3+3
7. (a) State differences between applet and application.
(b) Write code snippet that implements multiple inheritance in Java.
(c) Explain the function drawString() and deleteCharAt() with example. 3+3+(2+2)
8. Write short notes on the following (*any two*) : 5×2
(a) Wrapper Class
(b) Polymorphism
(c) AWT
(d) Java Interface.
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