

**2021**

**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** from the rest.

1. Answer **any five** questions : 2×5
- (a) Define object in Java.
  - (b) What is the purpose of wrapper class in Java?
  - (c) What is a daemon thread in Java?
  - (d) What are the different access specifier in Java?
  - (e) What do you understand by the scope of a variable?
  - (f) What is the role of JVM?
  - (g) Illustrate typecasting in Java with an example.
  - (h) What is the functionality of Appeal?
2. (a) What is constructor? Discuss about different types of constructors.  
(b) Explain the use of 'this' keyword with an example.  
(c) Why is Java preferred for software development? 5+2+3
3. (a) What are the different forms of Inheritance?  
(b) How does package differ from Interface? Explain it with suitable example. 5+5
4. (a) Write a Java program to illustrate exception handling.  
(b) Explain thread prioritization in Java. 5+5
5. (a) Write a program in Java to print the area of a circle by creating a class named Area taking the values of its radius as parameter of its constructor and having a method named 'returnArea' which returns the area of the circle.  
(b) With an example, show the use of logical and bitwise operator in Java. 5+5

**Please Turn Over**

6. (a) Write a program in Java to find vowels from a string.  
(b) Explain encapsulation with the help of a Java program. 5+5
7. (a) Write a Java program to check whether a number is prime.  
(b) How is JDBC used to connect database at the back-end? 5+5
8. (a) Discuss the basic principle of object oriented programming.  
(b) With an example show how multi-dimensioned array is used in Java. 6+4
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