

Reg. No. :

**Question Paper Code : 20413**

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2022.

Third/Fourth/Fifth Semester

Computer Science and Engineering

CS 8392 – OBJECT ORIENTED PROGRAMMING

(Common to : Computer and Communication Engineering/Electrical and Electronics Engineering / Electronics and Communication Engineering/Electronics and Instrumentation Engineering/Electronics and Telecommunication Engineering / Instrumentation and Control Engineering / Artificial Intelligence and Data Science/ Computer Science and Business Systems / Information Technology)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is meant by object oriented programming?
2. Define objects and classes in java.
3. What is object cloning?
4. Differentiate between class and interface.
5. What are exceptions?
6. Define stream.
7. What are the advantages of generic programming?
8. Write about threads.
9. What is meant by window adaptor classes?
10. Enumerate the features of AWT in java.

PART B — (5 × 13 = 65 marks)

11. (a) What is meant by polymorphism? Explain various types of polymorphism with suitable examples. (13)

Or

- (b) (i) Explain the characteristics of OOP. (7)  
(ii) Write a java program to find the factorial of any given number. (6)

12. (a) Discuss briefly about subclasses, object classes and abstract classes with methods. (13)

Or

- (b) (i) Write a java program to find the sum of even and odd numbers present in between 1 to 30. (6)  
(ii) Write a java program to demonstrate packages. (4)  
(iii) Discuss about inner classes. (3)

13. (a) (i) How can we create our own exceptions? Demonstrate with example program. (7)  
(ii) Describe about exception hierarchy. (4)  
(iii) How do you read files in Java? (2)

Or

- (b) (i) Differentiate between Byte streams and character streams. (6)  
(ii) Discuss about stack tree elements. (5)  
(iii) How do you write files in Java? (2)

14. (a) (i) What is thread and explain in details how many ways a thread can be created. (5)  
(ii) Describe about generic methods and generic classes. (8)

Or

- (b) (i) Explain briefly about synchronizing threads. (7)  
(ii) Explain the differences between multi-threading and multi tasking. (6)

15. (a) (i) Discuss briefly about AWT event hierarchy. (6)  
(ii) What is frame and explain about event handlers. (4)  
(iii) Discuss about components in detail. (3)

Or

- (b) (i) Define swing. Explain about swing components in detail. (7)  
(ii) Explain about text fields and its properties. (4)  
(iii) Define lists. (2)

PART C — (1 × 15 = 15 marks)

16. (a) (i) Create the classes named as Grand parent, Parent and child. Demonstrate with suitable functions about multi-level inheritance. (8)  
(ii) Write a Java code to demonstrate simple constructor, parameterized constructor and constructor overloading. (7)

Or

- (b) Develop a Java code using appropriate giving components for implementing login form which comprises of sign-up page and sign-in page. (15)