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Question Paper Code: 50424

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2023

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 — $(10 \times 2 = 20 \text{ marks})$

- 1. Distinguish between object and a class.
- 2. What is abstraction?
- 3. Define abstract class.
- 4. What is an interface?
- 5. Define Java exception.
- 6. Give any four built in exceptions in Java.
- 7. How threads and created in Java.
- 8. What is generic programming?
- 9. Define a swing in Java.
- 10. What is the difference between choice and a list?

PART B — $(5 \times 13 = 65 \text{ marks})$

11. (a) Explain in detail about the various concepts of object oriented programming.

Or

- (b) Explain in detail about the features of Java Programming Language.
- 12. (a) What is multiple inheritance? Is multiple inheritance supported in Java? If not how it is achieved in Java?

Or

- (b) Explain with an example how an interface is implemented.
- 13. (a) Explain in detail about how exceptions are handled in Java. Illustrate division by zero exception with a suitable program.

Or

- (b) Explain byte streams and character streams in Java.
- 14. (a) Discuss in detail about the life cycle of a Java thread with neat diagram.

Or

- (b) Explain the concept of generic class with an example program.
- 15. (a) Explain detail about the methods available in Graphics class with an example.

Or

(b) Write a Java program to display colors in a frame.

PART C — $(1 \times 15 = 15 \text{ marks})$

16. (a) Write a Java program to find the smallest number in the given array by creating a one dimensional array and two dimensional array by using new operator.

Or

(b) Write a Java program to create a bank data base application to illustrate the use of multithreading.