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Question Paper Code: 40908

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

Fourth Semester

Electrical and Electronics Engineering
CS 6456 – OBJECT ORIENTED PROGRAMMING

(Electronics and Instrumentation Engineering/Instrumentation and Control Engineering)

(Regulations 2013)

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions

PART - A

(10×2=20 Marks)

- 1. What is an object? Give example.
- 2. Define an abstract data type.
- 3. What is a member function?
- 4. Define polymorphism.
- 5. Outline the relationship between containers, iterators and algorithms.
- 6. Write the syntax for defining a function template.
- 7. What is a class? Give an example for a class in java.
- 8. Name the access modifiers in java.
- 9. Define a package in java and write the syntax to declare a package.
- 10. What is multithreading?

PART - B

(5×13=65 Marks)

11. a) Appraise the characteristics of object oriented programming languages. (13)

(OR)

b) Compare the features of C++ and Java.

(13)



12. a) Write a C++ program to sort an array of 'n' numbers in ascending order. Use classes and member functions. (13)(OR) b) What is an iterator? Explain with an example iterators in C++. (13)13. a) What is a template? Outline the need for templates in C++ and appraise with an example the different types of templates. (13)b) What is inheritance? Explain with an example the different types of inheritance in C++. (13)14. a) Explain with an example the control statements in Java. (13)(OR) b) Write a Java program to accept two matrices, multiply the matrices and print the result. Use classes and methods. (13)15. a) What is a java interface? How to implement an interface? Explain with an example. (13)(OR) b) What is exception handling? Explain with an example exception handling in java. (13)PART - C $(1\times15=15 \text{ Marks})$ 16. a) Write a C++ program to perform the following: (15)Define a class account to represent a bank account. Include the following: Data members: Account number Name of the depositor · Type of account · Balance amount in the account Member functions: To assign initial values · To deposit an amount • To withdraw an amount after checking the balance · To display name and balance

(OR)

b) Write a Java program to sort an array of 'n' names in alphabetic order. Use classes and methods. (15)