

D 22429

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Name.....

Reg. No.....

1ST SEMESTER M.Sc. DEGREE EXAMINATION, JANUARY 2012

Computer Science

CSC 1C 03—OBJECT-ORIENTED CONCEPTS AND C++

(2010 admissions)

Time : Three Hours

Maximum Weightage : 36

Part A

Answer all questions.

Each question carries 1 weightage.

1. Explain the term encapsulation.
2. Explain state retention and object identity.
3. Explain the role of messages in OOP.
4. Define a class for matrix.
5. List the advantages of function overloading.
6. Differentiate structure and class.
7. What is a function template ?
8. What is an **iterator** ?
9. What are the benefits of **UML** diagrams ?
10. What is a CRC card ?
11. What is a collaboration diagram ?
12. What is a deployment diagram ?

(12 x 1 = 12 weightage)

Part B

Answer any six questions.

Each question carries 2 weightage.

13. Discuss Object Oriented System Development.
14. Give a suitable example illustrating operator overloading.
15. With suitable example, explain **inline** function.
16. Write notes on Object I/O.
17. Write notes on **STL**.
18. What is a class diagram ? Explain with example

Turn over

19. Explain the purpose of state diagram. Give an example state diagram.
20. What are the steps in requirement capture ?
21. Discuss the principle of Object Oriented Design.

(6 x 2 = 12 weightage)

Part C

*Answer any three questions.
Each question carries 4 weightage.*

22. (a) Define a Class "book" with appropriate attributes and methods. The class 'book' is to be used in developing a library automation program. Write member function "issue" and "Reserve".
(b) Explain the purpose of constructors and destructors. What are the different types of constructors ?
23. (a) Write notes on container classes.
(b) Write a note on command line arguments.
24. (a) With suitable example, explain class templates.
(b) Briefly explain exception handling.
25. (a) With suitable example, explain object interaction diagram.
(b) What is an activity diagram ? Explain how an activity diagram helps in the design process.
26. (a) Write note on class design.
(b) Write notes on Software maintenance.
27. (a) Write notes on software testing.
(b) Write notes on design of software components.

(3 x 4 = 12 weightage)