

OOPS 2nd Test
Full Marks 30 Time 45 Minutes
Attempt All Questions

- 1) a) Specify the use of final and super in Java. 2.5
b) Justify the non-existence of virtual base class in Java? 1.5
c) Compare abstract class and interface in Java. 1.5
d) How runtime polymorphism can be achieved in Java? 1.5
e) Differentiate checked and unchecked exception. 1.5
f) Discuss the access specifier for a class in Java. 1.5
g) How does the task of destructor is accomplished in Java? 1.5
h) What is the use of namespace in C++? 1.5
i) In java, what will you do to check the equality of two objects in a class? 1
- 2) Design the class(es) for the following system:
For each student roll (unique), name and score are to be stored in a file. Also one should be able to do the following: i) search the details for a given roll number, ii) update the score for a given roll (if it exists), iii) Show all records. C++ code for (iii) is required. 4+3
- 3) How can you create the threads using Runnable? Clearly indicate the code and the data on which the thread will work. 2.5
- 4) a) Write a code snippet in Java to find out the number of words in a string. Assume words are separated by one space. [C-like solution will not be considered]. 2.5
b) Roll and score of the students are to be stored in a suitable data structure where frequently one may like to know the score against a roll. Suggest the scheme in Java with justification. 1
c) In C++ STL, how can we specify the priority for the items in a priority queue? 1
d) From C++ STL, a suitable container is chosen (may be array/list like) stores number of elements. Let V be the container. How will you traverse all the elements in V? 2

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