INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY
THIRUVANANTHAPURAM 695 547

First Year B. Tech. - Assignment Sheet
MA122-Computer Programming and Applications

19.04.2017   **Maximum Marks: 10**   **Assignment Sheet 14**

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a. Write a base class `Matrix` and derived classes `identity`, `diagonal`, `upper triangular`, `lower triangular` and `symmetric`.

   (a) Use base class to set the elements of the matrices.

   (b) Write a method to check whether the matrix entered is any following type of matrices: `identity`, `diagonal`, `upper triangular`, `lower triangular` and `symmetric`.

   (c) Write a method to find the determinant of the matrix entered. This method should be defined in all classes, but a proper or efficient method should be called for each type of the matrices.

Program submission:

Name the programs as XXXA14Y.cpp, where XXX is the last three digits of your student id and Y is program number. For example, if the student id is 'sc17b150' and your program number is 'a' then the file name should be 150A14a.cpp. Submit the programs using ftp to the server: 172.20.2.200