1. Write a java program using the following class hierarchy of an educational institution.

a) Class Staff (name, code).

b) Class Officer (grade), subclass of Staff.

c) Class Teacher (subject), subclass of Staff.

d) Class Typist (speed), subclass of Staff.

e) Class CasualTypist (daily wages), subclass Typist.

f) Class RegularTypist (remuneration), subclass of Typist.

Create different objects of each class except Staff, input values for different variables for each one,

store these objects using single array.

2. Create an abstract class called shape to model a three dimensional shape. Derive classes cube

and cone. Let user specify the size. The user may specify many items of the same shape. All the

instances of each shape should be stored into a single array. Write a program to calculate area

and volume of each shape

thread. Create 10 threads to find out all prime numbers within 1 to 100, distribute the job among 10

threads.

thread2. Create two threads; one will print from 1 to 10. Another will print 10 to 1. In the second thread

if value is 6 it will sleep for 10000 milliseconds.