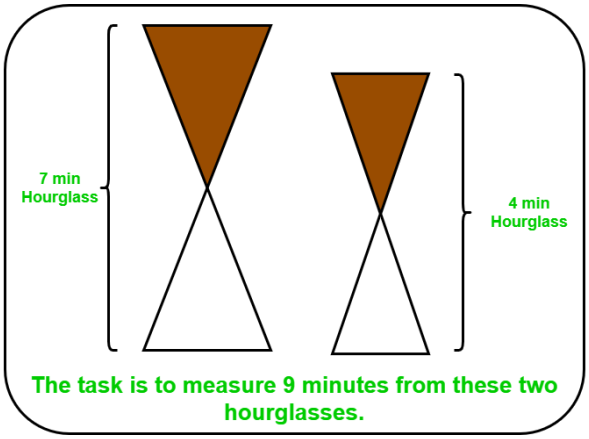
Software Development Fundamentals Lab – I [15B17CI171]
Assignment Sheet
Week 1 [6 Sep-11 Sep]
Lab B

Note: Students are advised to submit their solutions to respective lab faculty. The solution file must be names as "rollno_first name_w1B.doc" (here W1B represents week 1 lab B).

Q1. Given two hourglass of 4 minutes and 7 minutes, the task is to measure 9 minutes.



Q2. The letters J, K, L, M, N, O and Z, represent seven consecutive integers from 42 to 53; not necessarily in that order,

(1). O is as much less than K as L is greater than M.
(2). Z is greater than O.
(3). K is the middle term.
(4). J is 3 greater than M.

Can you find the sequence of letters from the lowest value to the highest value?

Q3. You have two ropes, each of which takes two hours to burn if lit at one end. These ropes are not homogeneous and some parts of the rope burn quickly than the other parts. If you cut the rope into half, you cannot assume that the half, you cannot assume that the half rope will take one hour to burn. Use these ropes to measure 1 hr 30 min.

Q4. The Emperor ordered his servants to fill up his treasury. Each of the 3 servants, had to go to the treasury, count how much gold coins there was at that moment, and then triple it and leave. Emperor has to reward the servants in some way, so he let each of them take 1 gold coin out before leaving. After all three servants have left; emperor collected exactly 500 gold coins in the treasury. How much gold coins did he have before the order?

Q5. Two trains are on same track and they are coming toward each other. The speed of the first train is 50 km/h and the speed of the second train is 70 km/h. A bee starts flying between the trains when the distance between two trains is 100 km. The bee first flies from first train to second train. Once it reaches the second train, it immediately flies back to the first train and so on until trains collide. Calculate the total distance travelled by the bee. Speed of bee is 80 km/h.