1. Consider the following pattern, where * denotes an LED that is ON and ^ denotes an LED that is OFF.

^ ^ ^ ^ ^

^ ^ ^ ^ *

^ ^ ^ * ^

^ ^ * ^ ^

^ * ^ ^ ^

* ^ ^ ^ ^

^ * ^ ^ ^

^ ^ * ^ ^

^ ^ ^ * ^

^ ^ ^ ^ *

^ ^ ^ ^ ^

Write a program to create the above pattern on LEDs connected to LPC2148 port pins.

Port pins P1.x , P1.x+1, P1.x+2, P1.x+3, P1.x+4, where x is CB.EN.U4CSE194*x, the last digit of your roll number.

Compile the code and simulate the results in Proteus.

Clear any doubts ins the question during the initial 10 minutes.

Mark distribution:

Program design - 8

Output on GPIO port in debug screen - 5

Simulation on Proteus - 3

Viva – 4

Total 20 marks