AMOGH M.K.

01FB15EEC027

Semester 4

Section ‘A’

**MICROCONTROLLERS LAB**  (UE15EC257)

**WATER LEVEL INDICATOR**

**PROGRAM :**

**#include<reg51.h>**

**sbit rs=P1^0;**

**sbit rw=P1^1;**

**sbit e=P1^2;**

**sbit quarter=P3^0;**

**sbit half=P3^1;**

**sbit threefourth=P3^2;**

**sbit full=P3^3;**

**void delay(unsigned int x)**

**{**

**unsigned int i,j;**

**for (i=x;i>0;i--)**

**{**

**for (j=0;j<1000;j++);**

**}**

**}**

**void write(int j)**

**{**

**rs=1;**

**rw=0;**

**P2=j;**

**e=1;**

**delay(1);**

**e=0;**

**}**

**void cmd(int j)**

**{**

**P2=j;**

**rs=0;**

**rw=0;**

**e=1;**

**delay(1);**

**e=0;**

**}**

**void puts(char \*a)**

**{**

**unsigned int p=0;**

**for (;a[p]!=0;p++)**

**write(a[p]);**

**}**

**void lcd\_init()**

**{**

**cmd(0x38);**

**delay(1);**

**cmd(0x0e);**

**delay(1);**

**cmd(0x01);**

**cmd(0x80);**

**}**

**void main()**

**{**

**quarter=half=threefourth=full=1;**

**while(1)**

**{**

**quarter=half=threefourth=full=0;**

**if((quarter==0)&&(half==0)&&(threefourth==0)&&(full==0))**

**{**

**lcd\_init();**

**puts("empty");**

**delay(500);**

**}**

**quarter=1;**

**if((quarter==1)&&(half==0)&&(threefourth==0)&&(full==0))**

**{**

**lcd\_init();**

**puts("quarter");**

**delay(500);**

**}**

**half=1;**

**if((quarter==1)&&(half==1)&&(threefourth==0)&&(full==0))**

**{**

**lcd\_init();**

**puts("half");**

**delay(500);**

**}**

**threefourth=1;**

**if((quarter==1)&&(half==1)&&(threefourth==1)&&(full==0))**

**{**

**lcd\_init();**

**puts("three-fourth");**

**delay(500);**

**}**

**full=1;**

**if((quarter==1)&&(half==1)&&(threefourth==1)&&(full==1))**

**{**

**lcd\_init();**

**puts("full");**

**delay(500);**

**}**

**}**

**}**

**OUTPUTS :**

