**Liquid Crystal Display**

Circuit Diagram:



**Theory Concept Used:**

A character LCD display has 16 pins which are connecter in the same fashion as shown in the Circuit diagram. An LCD display can be programmed using the LiquidCrystal library provided in the arduino.

**Learning and Observations:**

Following observations were recorded during the experiment: • The lcd can at max display 16 characters in two rows. • lcd.print() function is used to display something on the character LCD.

**Problems and Troubleshooting:**

No problem was faced while performing the following experiment and it commenced successfully.

**Precautions:**

The following precautions need to be considered while performing this experiment:

• The connections of the USB in both the PC and the ARDUINO UNO board should be snug.

• The USB ports of the PC and the ARDUINO UNO should be in a working condition.

• The sketch should be logically and syntactically correct and germane to the experiment that needs to be performed.

• The correct serial port should be selected that is the one through which the ARDUINO UNO has been connected.

• Look for errors during compilation and upload of the executable to the ARDUINO UNO.

• Disconnect the digital 1 and 0 pins while uploading the program to the board.

• Do not open more than one instance of the ARDUINO IDE at a time.

• The connections should be intact in the correct holes of the breadboard.

**Learning outcomes:**

The various learnings as the outcome of performing the above-mentioned experiment are: • Use of the various functions of the LiquidCrystal library. • Connection of the LCD with ARDUINO UNO.