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Program BSC in CSE

Course Code CSE 333

Course title Computer peripherals  
and Interfacing.

Dept of CSE/CST

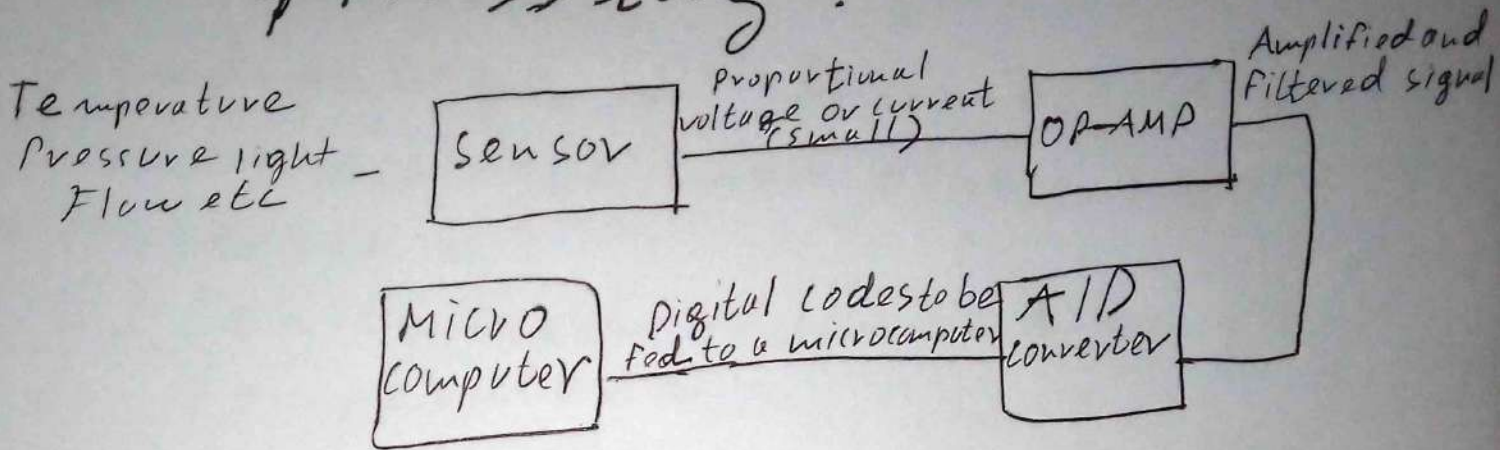
Victoria University  
Bangladesh.

Ans 1) a) A keyboard is a bank of switches whose individual state can be detected by computer system. A series of single state switches on any domestic electrical appliance can be regarded as a keyboard.

In contact type while pressing the key plunger causes the contacts to touch and to produce a voltage. The contact may bounce when the plunger is depressed giving the appearance of several rapid key depressions. This effect is known as key bounce. This must be eliminated by special circuitry which effectively ignores the key after its first depression for a very short period of time.

Ans 1) b) Analog interfacing is an electrical connection that forward analog elect-

Ans 1) b) - vic signals to downst-  
-ream electric and electronic  
devices or component for furth-  
-er processing.



analog Interfacing .

Ans 2) a) A sensor is a device that measures physical input from its environment and converts it into data that can be interpreted by either a human or machine.

Sensor and transducers are -

- 1) Photo resistor
- 2) Photo diode
- 3) Solar cell
- 4) Thermocouples
- 5) Thermistor .

Ans 2) b) Advantage of thermocouple  
1) can be used at very high temperature -

Ans 2) b) 2) have fast response in time.

3) low cost

4) durable

Disadvantage of thermocouple.

1) less accurate than other temperature sensor.

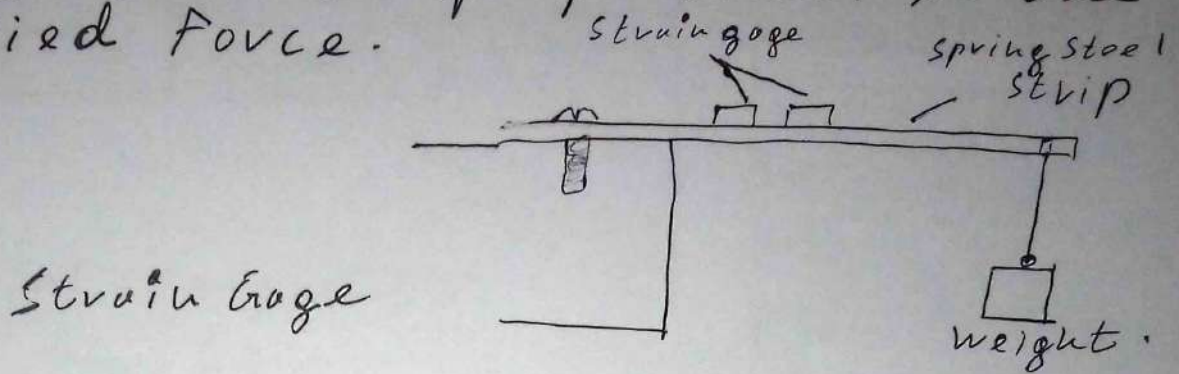
2) can be used at limited range of temperature.

3) other physical factor may effect other factor or properties.

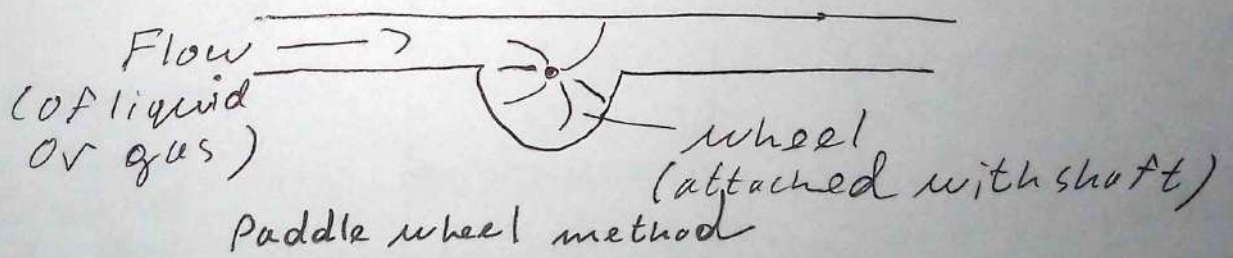
4) It is not 100% efficient.

Ans 3) a) Strain gage is a small resistor whose value changes when its length changed. It may made of thin wire, thin foil or semiconductor material. One end of a piece of spring steel is attached to a fixed surface. A strain gage is glued on top of the flexible bar. The force or weight ~~is~~ to be measured is applied to the unattached end of the bar. As the applied force bends the bar, the strain gage is stretched, increasing its resistance. The change in resistance is directly proportional to the applied force.

Ans 3) a) If a current is passed through the strain gage, then the change in voltage across the strain gage will be proportional to the applied force.



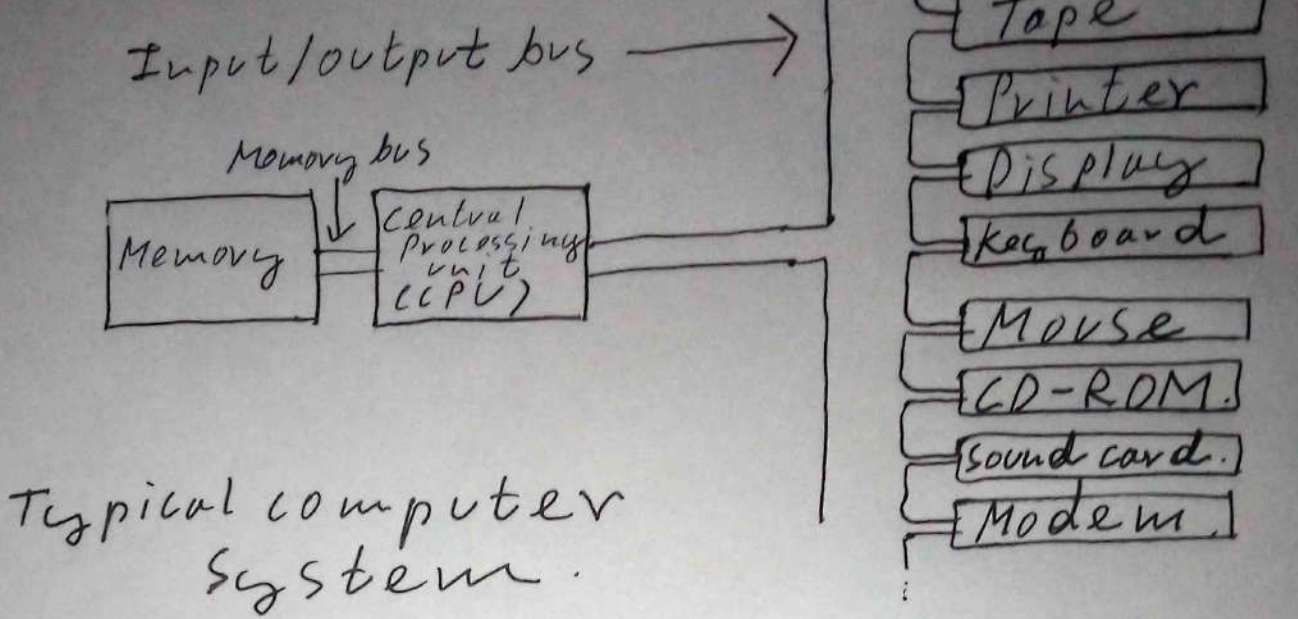
Ans 3) b) Paddle wheel method is used to check the flow of a liquid, also, speed, and many others. In paddle wheel method an optical encoder can be attached to the shaft of the paddle wheel to produce digital information as to how fast the paddle wheel is running. The rate at which paddle wheel turns is proportional to the rate of flow of a liquid or gas.



Ans 4) a) D/A applications

- 1) In compact disk audio player.
- 2) In speech synthesizer ICs
- 3) To build microcomputer controlled tester
- 4) To control small resistive heater.
- 5) Motor speed control.

Ans 4) b)



Ans 4) c)

