

## Part- 2

1Ans

Advantages SPI over UART

- High speed
- full duplex

UART used for point to point communication

2Ans

SFN	DIP
very small	large
soldering is difficult	Easy soldering

3Ans

It reduces the Electromagnetic Interference, if it is not present the PCB efficiency decreases.

4Ans

$$\text{voltage resolution} = \frac{3.3V}{2^{10}}$$

$$= 3.22 \text{ mV}$$

$$\approx 3 \text{ mV}$$

noise degrades accuracy

SA. It helps to enable line biating  
and detection

GA. We can use

- Heat sink
- Thermal vias to dissipate  
heat.