Total No. of Questions : 6]

SEAT No. :

P132

[Total No. of Pages : 2

Oct/BE/Insem. - 57
B.E. (Electronics)
Electronics System Design
(2012 Pattern)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates:

1) ***Answer three questions - Q1 or Q2, Q3 or Q4, Q5 or Q6.***
2) ***Figures to the right indicate full marks.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Use of pocket calculator is allowed.***
5) ***Assume Suitable data if necessary.***

Q1) a) Explain electrical, mechanical and environmental specifications of electronic products. **[5]**

b) Explain the bath tub curve for reliability indicating all its regions. **[5]**

OR

Q2) a) Explain the pilot production batch. Why it is important in electronic product design? **[6]**

b) What is necessity of environmental testing? How its carried out? **[4]**

Q3) a) Explain instrumentation amplifier for temperature measurement. **[6]**

b) Explain the significance of following errors associated with ADC- **[4]**

i) Gain error

ii) Offset error. What are the techniques used to minimize these errors.

OR

P.T.O.

Q4) a) Explain the need of Vref in ADC. Explain the factors to be considered while selecting vref. **[6]**

b) Explain the factors affecting on choice of op-amp for designing of signal conditioning circuit. **[4]**

Q5) a) Explain with circuit diagram of Interfacing of LCD display with microcontroller. **[6]**

b) What are the different factors for the selecting a particular microcontroller for any application. **[4]**

OR

Q6) a) Write short note on buses and protocols. **[6]**

b) Design and explain Interfacing of 4 wire resistive touch screen with microcontroller. **[4]**