Total No. of Questions : 8]

SEAT No. :

P3617

[Total No. of Pages : 2

[4959] - 1102

B.E. (Electronics)

Electronics System Design

(2012 Pattern) (End Sem.)

Time :2.30 Hours]   *[Max. Marks :70*

Instructions to the candidates:-
1) *Answer the questions Q(1) or Q(2), Q(3) or Q(4), Q(5) or Q(6), Q(7) or Q(8).*
2) *Figures to the right indicate full marks.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Use of electronic calculator is allowed.*
5) *Assume suitable data, if necessary.*

Q1) a) How to increase the reliability of the system? Explain the different soldering techniques used in high reliability product. **[8]**

    b) List different ADC specifications and explain it. **[6]**

    c) What are the factors affecting on selection of buses and protocols in high speed electronics product. **[6]**

OR

Q2) a) Explain the different soldering techniques used in large scale production and high reliability product. **[8]**

    b) Explain one example of application of instrumentation amplifier. **[6]**

    c) Design and explain Interfacting of LCD with microcontroller. **[6]**

Q3) a) Explain different stages of software development in electronic product.**[8]**

    b) Write a note on debugging tools and techniques for software design.**[8]**

OR

Q4) a) Explain the factors affecting on the choice of assembly language and high level language with example. **[8]**

    b) What are the features of assembler and cross compilers. **[8]**

P.T.O.

Q5) a) What are the different PCB Design issues for high speed integrated circuits. Explain in detail. **[10]**

b) Explain the importance of shielding and grounding. **[8]**

OR

Q6) a) What are the different PCB Design issues of analog and mixed signal Circuits. Explain in details. **[10]**

b) List different EMI/EMC standards. Explain its importance. **[8]**

Q7) a) Explain how debugging of electronics circuit is carried out by logic analyzer. **[8]**

b) Explain with suitable example of vibration testing. **[8]**

OR

Q8) a) What is need of environmental testing? Explain different types of environmental testing. **[8]**

b) Write a notes on : **[8]**

   i) Digital storage oscilloscope.

   ii) Mixed single oscillsocopes.

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