

B.Tech. SEM -VII Electronics 2014 Course (CBCS) : WINTER - 2018
SUBJECT: ELECTRONIC SYSTEM DESIGN

Day: Wednesday
Date: 28/11/2018

W-2018-2556

Time: 02.30 PM TO 05.30 PM
Max. Marks: 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat diagram **WHEREVER** necessary.
- 4) Assume suitable data, if necessary.

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- Q.1** Discuss the main design considerations for, **(10)**
i) Precision OPAMP.
ii) High Speed OPAMP.
- OR**
- Q.1** Discuss the important specification of Digital to Analog Convertor (DAC). **(10)**
Which parameter plays important role while selecting DAC, explain with suitable diagram.
- Q.2** Consider case study for the mini project you design. Justify the following, **(10)**
i) Selection of Microcontroller.
ii) Selection of Digital input/output and Analog input/output.
- OR**
- Q.2** Interface KEYBOARD with Microcontroller 8051 with neat interfacing **(10)**
diagram.
- Q.3** Explain following International Standards in detail, **(10)**
i) ISO Standard.
ii) British Standard.
- OR**
- Q.3** State and explain various phases of software design and describe each stage. **(10)**
- Q.4** Describe the operation of Logic Analyzer using neat block diagram. **(10)**
- OR**
- Q.4** What is Monte-Carlo Analysis? Give application areas of Monte-Carlo **(10)**
Analysis.
- Q.5** What is Thermal Management? Explain following, **(10)**
i) Heat Transfer Fundamentals.
ii) Basic Thermal Calculations.
- OR**
- Q.5** State the need for environmental testing with Temperature, Humidity, **(10)**
Vibrations and Shock Tests.
- Q.6** State the important terms for PCB design. Give types of PCB's in detail. **(10)**
- OR**
- Q.6** What is Layout in PCB? Explain following, **(10)**
i) Layout Scaling.
ii) Grid System in Layout.
iii) Layout Method.
iv) Layout Rules.
v) Layout Sketch.