

**BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)**  
**B.Tech.Sem - VII ELECTRONIC : WINTER- 2022**  
**SUBJECT : ELECTRONIC SYSTEM DESIGN**

Day : Tuesday

Time : 02:30 PM-05:30 PM

Date : 13-12-2022

**W-13395-2022**

Max. Marks : 60

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw of neat and labeled diagrams **WHEREVER** necessary.
  - 4) Assume suitable data if **NECESSARY**.
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- Q.1** Discuss the design considerations for, **(10)**  
a) Precision OPAMP.  
b) High Speed OPAMP.

**OR**

Explain main six parameters which plays important role in case of ADC.

- Q.2** Compare following, **(10)**  
a) LED with LCD.  
b) RS232 with RS485.

**OR**

Explain in brief the scheme of LED interfacing with microcontroller.

- Q.3** State and explain various phases of software design and explain each stage. **(10)**

**OR**

Write detail notes on,,

- a) EDA tools.
- b) Assemblers.

- Q.4** What is Monte-Carlo analysis? Give application area of Monte-Carlo analysis. **(10)**

**OR**

Explain operation of logic analyzer using block diagram.

- Q.5** List the different layout design tools available in market with its specifications **(10)**

**OR**

State the need for environmental testing with temperature, humidity, vibrations and shock tests

- Q.6** What is layout in PCB design? Explain following **(10)**

- a) Layout Scaling.
- b) Layout Methods.

**OR**

What is grounding in ESD? Explain safety grounds and signal grounds.

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