B.TECH. SEM -VII ELECTRONICS 2014 COURSE (CBCS) : WINTER - 2017

SUBJECT : ELECTRONIC SYSTEM DESIGN

Day : **Wednesday**
Date : **17/01/2018**

W-2017-2296

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) Assume suitable data if necessary.

Q.1 Discuss selection criterion of OPAMP & Instrumentation Amplifier? Also state the need of Instrumentation amplifier with an example. **(10)**

OR

Discuss the type of ADC available & explain main six parameters which play important role in case of ADC.

Q.2 Compare following, **(10)**
a) RISC with CISC b) LCD with LED c)I2C with SPI

OR

Discuss the scheme of LED interfacing with microcontroller with diagrams.

Q.3 Explain following international standards in details, **(10)**
1) IEEE Standard.
2) FCC Standard.

OR

State & explain the different methods of program flow representation.

Q4 Explain operation of logic analyzer using neat block diagram. **(10)**

OR

What is Monte-Carlo analysis? Give application areas of Monte-Carlo analysis.

Q5 State need for Environmental testing with Temperature, Humidity, Vibrations & Shock tests. **(10)**

OR

What is Thermal Management? Explain Heat Transfer Fundamentals and Basic Thermal Calculations.

Q6 State the important terms for PCB design. Give the types of PCB in detail. **(10)**

OR

What is Layout in PCB design? Explain following,
1. Layout scaling.
2. Grid system in layout.

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