Code No: **R32101** **R10** **Set No. 1**

III B.Tech II Semester Supplementary Examinations, April - 2017

DATA ACQUISITION SYSTEMS

(Electronics and Instrumentation Engineering)

Time: 3 hours **Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks
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1 a) List the Converter Characteristics and explain them.
b) Discuss the objectives of DAS.

2 a) Explain the Principle and design of a Parallel R– 2R DAC.
b) List the features of DAC.

3 a) Explain a ADC that converts Voltage to Time.
b) Discuss the working of a Dual slope integration.

4 a) Explain the function of Programmable non-linear ADCS.
b) Write the features of Switched capacitor NDCS.

5 With neat figure explain the working of a Digitally programmable V/I sources.

6 a) Signify the role of ADC in Digital signal processing systems.
b) Explain the functioning of Electronic weighing machines and what is the role of ADC.

7 Explain the Interfacing of DACS to a µP

8 Write explanatory notes on
a) Error budget analysis of DAS
b) Error reduction in DAS

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