Printed Pages : 2   IC – 802

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 3064   Roll No.

B. Tech.

(SEM. VIII) EXAMINATION, 2006-07

DIGITAL MEASUREMENT TECHNIQUES

Time : 3 Hours]   *[Total Marks : 100*

Note :   *Attempt all questions.*

1   Attempt any **two** parts :   10×2=20

    (a)   Mention the merits and demerits of digital measurements over analog measurements. What is microprocessor? List some of the applications of microprocessor.

    (b)   What is digital voltmeter? What are its advantages? List different types of DVMs. How can a DVM be used for the measurement of current?

    (c)   Write short notes on :

        (i)   Vernier technique

        (ii)   Time constant measurement.

2   Attempt any **two** parts :   10×2=20

    (a)   Explain how high frequency can be measured by digital technique? Discuss the problems associated with measurement of resistance.

    (b)   Explain the programmable register and its use?

    (c)   Describe in detail the Digital programmable amplifiers and filters.

V-3064]   1   [Contd...

3   Attempt any **two** parts :   10×2=20

(a)   Sketch the block diagram of one digital to analog conversion techniques and discuss briefly the function of individual blocks.

(b)   Briefly explain one of the techniques adopted for A/D conversion.

(c)   Explain the digital multimeter and its use.

4   Attempt any **two** parts :   10×2=20

(a)   Explain with block diagram, working of digital ohm meter.

(b)   Describe the method for measurement of capacitance at high frequency.

(c)   Write short notes on :
(i)   Q-meter
(ii)   Decibel meter.

5   Write short notes on : (any **two**)   10×2=20

(a)   FFT

(b)   Digital filter

(c)   Sampling theorem.

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