

B.TECH SEM - VI (2007 COURSE) (E & TC ENGG.) :
SUMMER - 2018

SUBJECT: ELECTRONIC INSTRUMENTS & MEASUREMENT SYSTEMS

Day : **Wednesday**
Date : **06/06/2018**

S-2018-2745

Time : **02.30 PM TO 05.30 PM**
Max Marks : 80

N.B. :

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining attempt **ANY TWO** questions from each section.
- 2) Figure to the right indicate **FULL** marks.
- 3) Answers to both sections should be written in **SEPARATE** answer books.
- 4) Use of non-programmable **CALCULATOR** is allowed.
- 5) Assume suitable data, if necessary.

SECTION - I

- Q.1**
- a) What is auto-zeroing? (05)
 - b) Explain basic principle of digital frequency counter. (05)
 - c) Compare manual and computer controlled test measurement. (04)
- Q.2**
- a) What is true RMS method? How it is classified? Explain anyone in detail. (07)
 - b) Explain principle of vector voltmeter in detail. (06)
- Q.3**
- a) What are the high frequency measurement techniques? Explain any one in detail. (07)
 - b) What is TCXO? (06)
- Q.4**
- a) Explain PCI/PCI express bus in detail. (07)
 - b) What is Labview? (06)

SECTION II

- Q.5**
- a) What is the basic principle of wave analyzer? (05)
 - b) Explain SINAD test in network analyzers. (05)
 - c) Compare CRO and DSO. (04)
- Q.6**
- a) Explain FFT analyzer in detail. (07)
 - b) What is protocol analyzer? (06)
- Q.7**
- a) Explain S- parameters in detail. (07)
 - b) Differentiate Scalar and vector network analyzer. (06)
- Q.8**
- a) What is basic principle of curve tracer? Explain it with suitable block diagram. (07)
 - b) What are the design considerations of DSO? (06)

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