

Total No. of Questions : 8]

SEAT No. :

P3621

[Total No. of Pages : 2

[4959] - 1107
B.E. (Electronics)
Advanced Measurement Systems
(Semester - I) (2012 Pattern) (Elective - I)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:-

- 1) *Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 2) *Figures to right indicate full marks.*
- 3) *Assume suitable data if necessary.*

- Q1)** a) State and explain electrical validation and debug with MSO Series Oscilloscope. [8]
b) Draw & Explain the architecture and operation of Spectrum Analyzer. [6]
c) What are the signal integrity testing challenges and possible solutions?[6]

OR

- Q2)** a) Draw the architecture and explain in detail logic analyzer. State applications. [6]
b) What are the different interfacing techniques? Explain interfacing of graphic LCD display. [8]
c) Explain embedded communication using CAN [6]

- Q3)** a) Draw & Explain direct reading barrater bridges. [8]
b) Explain single line cavity coupling system for wavelength measurement.[8]

OR

- Q4)** a) Explain measurement of attenuation and free space attenuation. [8]
b) Explain detection & measurement of microwave power. [8]

- Q5)** a) Explain test system development using virtual instrumentation. [8]
b) Explain the application of TDM and PSK in instrumentation. [8]

OR

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- Q6)** a) Explain Lab View based Data acquisition system design. [8]
b) Explain fundamental test set up for advanced radar systems. [8]
- Q7)** a) Explain GSM Modem for AT Commands. [6]
b) Explain Analog Multiplexer in detail. [6]
c) Explain automation in digital instruments. [6]

OR

- Q8)** Write short note on any three [18]
a) Microwave Enclosures.
b) Sample and Hold.
c) Measurement of VSWR,
d) Universal Counter.

