**Total No. of Questions : 4]**

**SEAT No. :** ____

**P798**

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## T.Y. B.Sc. (Vocational)

## ELECTRONIC EQUIPMENT MAINTENANCE

## Electronic Instrumentation

**(2013 Pattern) (Semester-III) (Paper-VI) (New)**

***Time : 2 Hours]*** ***[Max. Marks : 40***

***Instructions to the candidates:***

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***
3) ***Neat diagrams must be drawn wherever necessary.***

***Q1)*** a) Answer the following: **[4×1=4]**

i) What is event sequence?

ii) What is LDR?

iii) What do you mean by active sensor?

iv) Give one example of null type instruments.

b) Answer the following: **[2×2=4]**

i) Classify- Mercury Thermometer.

ii) Explain the term 'internal relay'

c) Answer the following: **[2×2=4]**

i) Why are null-type instruments more accurate than deflection-type?

ii) Define accuracy as % of true value.

***Q2)*** Answer the following - (any 2). **[2×4=8]**

a) Discuss commissioning of PLC system and testing its inputs and outputs.

b) Explain the DSP with the help of block diagram.

c) Discuss the advantages of digital transducers.

***P.T.O.***

***Q3)*** Answer any 2: **[2×4=8]**

a) What is ladder diagram? Give the rungs for AND gate and OR gate.

b) Explain optical encoder.

c) Discuss relative and absolute motion devices.

***Q4)*** Answer any 2: **[2×6=12]**

a) Discuss architecture of a PLC processor.

b) Explain basic spectrum analyzer.

c) Write a note on pneumatic load cell.

OR

***Q4)*** Answer the following: **[3×4=12]**

a) R=100 Ω, L=10mH; f=1kHz. Evaluate the branch impedance in complex and polar form.

b) Discuss logic analyzer.

c) Explain the term distortion.