

Answer key

23747

Marks

Q. No.

1

- a) Accuracy — 1 mark
 Precision — 1 mark
 Linearity — 1 mark
 Sensitivity — 1 mark
 Resolution — 1 mark

b) Applications of α -meter any 2 — 5 marks.

c) Role of delay line in CRO — 5 marks

d) selection criteria of transducer — any five — 5 marks.

e) Programmable Logic Controller
 diagram — 2 marks
 Explanation — 3 marks.

f) List pressure level flow transducers — 2 marks
 level — 1 mark
 flow transducers — 2 marks.

no.

2

a) measurement of inductance maxwell bridge

diagram — 5 marks
 Explanation and derivations — 5 marks.

b) Kelvin double bridge diagram — 3 marks
 Explanation — 2 marks

mega ohm bridge diagram — 3 marks
 Explanation — 2 marks.

no. 3

a) DSO diagram of DSO — 4 marks
 Explanation — 3 marks
 applications — 3 marks

b) Lissajous figures in detection of frequency
 diagram — 3 marks
 Explanation — 2 marks

Lissajous figures in detection of phase
 diagram — 3 marks
 Explanation — 2 marks.

Q. No.

Marks

4

Compare

a)

RTD

Thermistors

Thermocouples

Construction — 3 marks
 materials — 2 marks
 Ranges — 2 marks
 Applications — 3 marks.

b)

one application of LVDT

Diagram — 5 marks
 Explanation — 5 marks.

Q. No.

5

E60

a)

Capacitance type method for level measurement

Diagram — 4 marks
 Explanation — 3 marks
 Advantages — 1.5 marks
 Disadvantages — 1.5 marks

b)

Rotameter

Diagram — 4 marks
 Explanation — 3 marks
 Advantages — 1.5 marks
 Disadvantages — 1.5 marks.

Q. No.

6.

a)

Elastic pressure transducer

Diagram — 2 marks
 Explanation — 2 marks

b)

DAS — single channel

Diagram — 3 marks
 Explanation — 2 marks

c)

errors in measurement — 5 marks

d)

Auto ranging in digital instruments — 2.5 marks.

Zero Adjustment in digital instruments — 2.5 marks

