

FOURTH SEMESTER DIPLOMA EXAMINATION IN ENGINEERING
AND TECHNOLOGY

ELECTRONIC MEASUREMENTS AND INSTRUMENTATION

MODEL QUESTION PAPER – SET-1

Time: 3 hours

Maximum Marks: 75

PART A

I. Answer all the following questions in one word or sentence.

(9 x 1 = 9 Marks)

Module Outcome Cognitive level

1	The closeness of values indicated by an instrument to actual value is defined as	M 1.01	R
2	The PMMC instrument is most suitable for measurement	M1.03	U
3 in CRT generates electron beam	M2.01	U
4	Kelvins bridge consists of..... bridge	M3.01	U
5	A spectrum analyser works in domain	M3.04	U
6	Wheastones bridge works on the principle of.....deflection	M3.01	U
7	Potentiometer is used to measure.....	M3.01	U
8	Define sensitivity of a transducer	M4.02	U
9	Load cell is a device that converts..... intosignals	M4.03	U

PART B

II. Answer any Eight questions from the following

(8 x 3 = 24 Marks)

Module Outcome Cognitive level

1	Outline the term gross systematic error in instruments	M1.01	R
2	Demonstrate how a moving coil system can be converted to a voltmeter	M1.02	U
3	List any 6 advantages of PMMC instrument	M1.03	U
4	Write a note on graticules in CRT	M2.01	U
5	In the figure below what is the value of x when the Wheatstone's network is balanced	M3.01	U

6	Outline the concept of wave analyser	M3.04	U
7	List any 3 requirements of AC potentiometer	M3.01	U
8	Write a note on thermistor	M4.03	U
9	List the factors for selecting a transducer	M4.02	U
10	Outline the concept of Loadcell	M4.03	U

PART C

III. Answer all questions from the following (6 x 7 = 42 Marks)

Module Outcome Cognitive level

1	Illustrate the construction of Galvanometer	M1.02	U
OR			
2	Explain the block diagram of ramp type digital voltmeter	M1.04	U
3	Summarize the working of attraction type moving iron instrument	M1.03	U
OR			
4	Illustrate the construction of CRT	M2.01	U
5	Explain the basic block diagram of CRO	M2.02	U
OR			
6	Draw the block diagram of Digital storage oscilloscope	M2.04	U
7	Explain the equivalent circuit for 10:1 probe	M2.03	U
OR			
8	Summarize the block diagram of Function generator	M3.03	U

9	Explain the working of slide wire potentiometer	M3.01	U
OR			
10	Draw and explain the circuit of Q meter	M3.04	U
11	Explain the block diagram of X-Y recorder	M4.04	U
OR			
12	Summarize the working of LVDT	M4.03	U