



MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

(A constituent unit of MAHE, Manipal)

SEVENTH SEMESTER B. TECH (ELECTRONICS AND INSTRUMENTATION)

PROCTORED ONLINE END SEMESTER EXAMINATION Dec. 21/Jan. 22

SUBJECT: Virtual Instrumentation (ICE 4306)

TIME: 75 min

DATE: 29/12/2021

MAX MARKS 20

Note: Answer All questions.

1	A	With a diagram explain the architecture of the virtual instrumentation system	5
	B	Describe 4-20 mA current loop with a diagram and mention its advantages.	3
	C	Distinguish traditional instruments from virtual instruments.	2
2	A	Brief about the following types of signal conditioning methods. (i) Amplification (ii) Isolation (iii) Multiplexing (iv) Filtering	4
	B	Explain the GPIB system with a neat diagram and mention their features.	3
	C	Discuss three applications of i) Pattern matching ii) Geometric matching.	3