Reg. No.										

MANIPAL INSTITUTE OF TECHNOLOGY
Manipal University

SECOND SEMESTER M.Tech. (CS) DEGREE END SEMESTER EXAMINATION
May/June 2016
SUBJECT: ADVANCED VIRTUAL INSTRUMENTATION (ICE - 572)

TIME: 3 HOURS **MAX. MARKS: 50**

Instructions to candidates
- Answer **ANY FIVE** full questions.
- Missing data may be suitably assumed.

1A. With block diagram explain the architecture of virtual instrument.

1B. Differentiate between step in, step into and step out buttons of debugging in LabVIEW programming.

1C. What are express VIs and standard VIs?

(5+3+2)

2A. Explain different components of VI.

2B. Differentiate between local and global variables? What are their advantages and disadvantages?

2C. What is auto indexing explain with an example.

(4+4+2)

3A. Explain the types of pallets available in LabVIEW

3B. What are stacked shift registers? When are they used?

3C. What is disk streaming with low level functions?

(5+3+2)

4A. Explain any 2 types of graphs available in LabVIEW.

4B. What is error cluster? Explain with an example.

4C. Briefly explain task timing and task triggering concepts.

(4+3+3)

5A. Describe the methods of increasing measurement quality.

5B. Explain counters and digital I/O.

5C. Distinguish RS 232 and RS 485.

(5+3+2)

6A. Explain any five signal conditioning methods.

6B. Write a short note on following functions related to Machine vision
   i) Pattern matching
   ii) Geometric Matching

(5+5)