HCL-003-027901 Seat No. _____

M. Sc. (ECI) (Sem. IX) (CBCS) Examination

October – 2017

Paper - 33 : Labview : An Introduction

Faculty Code : 003

Subject Code : 027901

Time : **3** Hours] [Total Marks : **70**

Instructions : (1) All questions carry equal marks.

(2) Figures on the right hand side indicate marks.

1 Answer the following : (Any **Seven**) **14**

(1) What is Virtual Instrumentation ?

(2) What is tunnel ?

(3) What is difference between controls and indicators ?

(4) How many number of case can be used in case structure ?

(5) What are the three main components of a virtual instrument ?

(6) What are the three palettes used in programming ?

(7) What is connector pane ? Where is it used ?

(8) List available loops in LabVIEW.

(9) How is LabVIEW different from text-based programming languages ?

(10) What is Graphical System Design (GSD) Model ?

2 Answer the following : (Any **Two**) **14**

(1) Why LabVIEW a graphical programming language ?

(2) Explain LabVIEW environment.

(3) Explain the features in the front panel toolbar used in programming.

3 (a) Answer the following : **14**

(1) What is looping in LabVIEW ? State the advantages of using loops.

(2) What is a For Loop ? Under what circumstances are For Loops used ?

OR

3 Answer the following : **14**

(1) Explain data flow programming.

(2) What is context help and how it can be helpful ? Give example.

4 Answer the following : **14**

(1) Define an array in LabVIEW. Where might it be used ?

(2) Define auto-indexing. What does "polymorphic" mean ?

5 Answer the following : (Any **Two**) **14**

(1) Build a VI that converts °C into °F

(2) Build a VI that creates two dimensional array of random number.

(3) Build a VI that computes slope of a line.

(4) Build a VI that gives average of last three thermometer reading.