Q.27 Draw and briefly explain block diagram of virtual instrumentation.

Q.28 Write five difference b/w array & structure.

Q.29 Write a short note on ADC.

Q.30 Write down the advantages of virtual instruments over conventional Instruments.

Q.31 Write a short note on various data acquisition cards.

Q.32 Write down the functions of front panel window used in VI.

Q.33 Write a short note on GPIB.

Q.34 Draw a Briefly explain block diagram of Lab VIEW.

Q.35 Write a short note on editing and debugging VI.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Explain in detail PC hardware structure used in data acquisition.

Q.37 Define Lab View. How lab view can be helpful in instrumentation & control.

Q.38 Write a short note on any two

a) Application of VI in process control

b) Advantages of virtual instrument

c) Clusters in lab view

Roll No. .....

6th Sem / Branch : IC

Sub.: Virtual Instrumentation

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Data acquisition system can be controlled using LAB VIEW

a) True b) False

Q.2 What does VI stand for ?

a) Visible items b) Virtual items

c) Visible information d) Virtual instruments

Q.3 Which of the following is not a serial protocol?

a) SPI b) Serial port

c) 12C d) RS232

Q.4 Data acquisition system are used

a) Band width is high

b) Band width is medium

c) Band width is low

d) Band width is zero

Q.5 Which part of the VI is used to interact with the user when program is running?

a) Icon assembly b) Block diagram

c) Front Panel d) Icon connectors

Q.6 Block diagram objects include
- a) Terminal
- b) Function and wires
- c) Constants & structures
- d) All of the above

Q.7 A/D converter is used for _____
- a) Converting digital to analog
- b) Converting analog to digital
- c) Converting digital to mixed signal mode
- d) Converting analog to mixed signal

Q.8 GPIB stands for
- a) Grand plus interface bus
- b) General plate interface bus
- c) General purpose interface bus
- d) General part interface bus

Q.9 USB stands for
- a) Universal synchronous bus
- b) Uniform serial bus
- c) Uniform series bus
- d) Universal serial bus

Q.10 Virtual instrument files is used for
- a) National instruments
- b) Regional instruments
- c) International instruments
- d) All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Define arrays.

Q.12 DIO stands for _____

Q.13 Lab view program are called as _____

Q.14 Expand DAC.

Q.15 Define palettes.

Q.16 List two application of Lab VIEW.

Q.17 Give one difference between chart & graph.

Q.18 What do you mean by inter bus?

Q.19 Give two examples of signal processing.

Q.20 Define menus_____

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Write steps for creating and saving a VI.

Q.22 Write a short note on RS 485 interface.

Q.23 Describe the role of connectors and timers in data acquisition.

Q.24 Write a short note on instrumentation buses.

Q.25 How VI can be used to control pressure of a system.

Q.26 Describe the role of palettes & menus is LAB view.