

Time: 3 Hours

Total Marks: 80

- (1) **Question no.1 is compulsory.**
- (2) Answer any 3 questions from the remaining 5 questions.
- (3) Assume suitable data wherever required.

Q.1 Attempt any four 20

- a) Give the full form of LabVIEW and state its one engineering application.
- b) Explain the different components of LabVIEW VI.
- c) Explain Boolean data type in LabVIEW.
- d) Give the difference between FOR and WHILE loop.
- e) Give advantages of LabVIEW Software programming over conventional programming.

Q.2

- a) Explain with block diagram data acquisition system. **10**
- b) Write a program to demonstrate implementation of case structure using LabVIEW. **10**

Q.3

- a) List different data types in LabVIEW and explain any two in detail. **10**
- b) Explain the properties and use of shift register in LabVIEW. **10**

Q.4

- a) Explain the importance of sub-VI and give one example program. **10**
- b) Explain the implementation of Counter for a suitable process application using LabVIEW. **10**

Q.5

- a) Explain the use of clusters with a suitable example. **10**
- b) List different options to plot the data in LabVIEW and explain with suitable applications. **10**

Q.6

- a) Explain the design of digital multimeter using LabVIEW. **10**
- b) Explain implementation of controller for a process using LabVIEW. **10**
