

## VSI Industrial & Intelligent Instrumentation

- i) Answer all of the following. (2x10)
- ii) What is intelligent instrument? What are the subsystems of intelligent instrument?
- iii) What are the advantages of VI techniques?
- iv) Draw the flow chart equivalent to write loop in LabVIEW.
- v) Write the example of polymorphic function of array.
- vi) What is DAA? Explain its components.
- vii) What is slow rate and settling time?
- viii) What are the counter and timer signals? Explain it.
- ix) What are the applications of intelligent sensor in biomedical applications?
- x) Write about self diagnosis and remote calibration features.
- xi) What is curve fitting?

2) Answer any ~~Five~~ <sup>Six</sup>? (5x6)

- i) write down the difference between intelligent and dumb instruments.
- ii) Discuss interfacing with VXI, SCXI communication.
- iii) what is structured? Explain different types of structure.
- iv) compare intelligent transducers with conventional transducers.
- v) write the difference between data flow and graphical programming technique.
- vi) Explain use of data socket for networked communication and Protocol.
- vii) Explain application of intelligent sensor in biomedical and process control.

3) Answer any three (10x3)

- i) What is loop in LabVIEW? Explain the different types of loop.
- ii) Explain basic ADC design and interfacing methods of DAA hardware.
- iii) Explain intelligent Prosscomp flow and temperature sensor.
- iv) What is MEMS. Write its principle and application.