

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain in detail with a neat block diagram the function of IC tester. (10)
(ii) Draw the circuit diagram of multimeter. (6)

Or

- (b) Discuss in detail with necessary diagram, the following types of DVM
(i) Ramp type (ii) Integrating DVM (iii) Continuous – balance
(iv) successive approximation DVM. (4 × 4)

12. (a) With a neat block diagram, explain in detail about
(i) Signal generator
(ii) XY – recorder
(iii) Data logger. (5+6+5)

Or

- (b) (i) Explain and obtain an expression for series Q meter circuit
(ii) Discuss in detail about the function of wave analyzer with a block diagram. (8+8)

13. (a) Explain in detail about (i) EIA 232 Interface standard (ii) EIA 485 Interface standard. (8+8)

Or

- (b) Give an application of a modern control process with a data flow representation in any one of the interface standard. (16)

14. (a) Assume an application of measuring energy, use sub VI appropriately and obtain a block diagram as well as front panel? (16)

Or

- (b) Using formula nodes, graphical display, loops., and cluster perform
(i) matrix multiplication (ii) sum of squares of n numbers. (8+8)

15. (a) Discuss in detail the temperature control application using VI with a front panel and block diagram. (16)

Or

- (b) Explain in detail with necessary connection diagrams for an industrial application where pressure, flow velocity and speed are to be controlled. Obtain the above said information to the PC and send the appropriate signal to control the process.