



11. (a) With a diagram explain the application of an OPAMP as a integrator and a differentiator.

Or

- (b) Explain the functions of any one active and passive filter with diagrams.

12. (a) With a diagram explain the operation of a 4 bit ripple counter.

Or

- (b) With suitable diagrams explain the theory of a LVDT.

13. (a) Explain a method for force measurement.

Or

- (b) Explain the theory of operation of a mass flow meter.

14. (a) Discuss on the various applications of a CRO.

Or

- (b) Write notes on tape storage and data loggers.

15. (a) Discuss the theory of a field controlled dc motor.

Or

- (b) With necessary derivations explain the principle of a PDI controller.