



(b) Explain the operating principle of moving coil and moving iron instruments. (16)

12. (a) Explain the construction and principle of operation of a DC generator with neat diagrams. (16)

Or

(b) Describe the different starting methods for single phase induction motor. (16)

13. (a) Explain with neat diagram, how current flows in a PN junction diode and also discuss the limitations in the operating conditions a PN junction with V-I characteristics. (16)

Or

(b) Discuss the static characteristics (input and output) of Common Emitter (CE) configuration of BJT. (16)

14. (a) Design and explain the working of a synchronous mod-6 counter. (16)

Or

(b) Explain the analog to digital converter using the successive approximation technique with neat diagram. (16)

15. (a) Explain the need for modulation and also compare AM with FM. (16)

Or

(b) (i) Discuss the merits and demerits of FAX machines. (8)

(ii) explain the working principle of microwave communication. (8)