

Dr. Ambedkar College of Commerce and Economics, Wadala, Mumbai – 400 031
F.Y.B.Sc (IT) First Semester Examination October 2015
Sub: Electronics and Communication Technology

Date: 26/10/2015

Marks: 75

Time: 8.00 to 10.30 a.m.

N.B. Draw neat diagrams wherever necessary.

Q.1 Attempt any two.

- A) Write short note on intrinsic semiconductors and process of doping. (05)
- B) Explain formation of P-N junction diodes? (05)
- C) Application of diode as full wave rectifier circuits. (05)
- D) Explain formation of n-p-n transistors. (05)

Q.2 Attempt any two.

- A) Explain working of Darlington pair in current amplification. (05)
- B) Explain application of transistor as amplifier. (05)
- C) Explain different configuration of transistor biasing. (05)
- D) Derive relationship between Alpha and Beta current factor. (05)

Q.3 Attempt any two.

- A) Write short note on Negative feedback circuits. (05)
- B) Explain Hartley oscillators with proper circuit diagram. (05)
- C) Explain pin diagram of IC555 timers. (05)
- D) Explain Bistable operation using IC555. (05)

Q.4 Attempt any two.

- A) Explain with block diagram communication system. (05)
- B) Define modulation and explain some of the advantages of modulation. (05)
- C) Explain different type of modulation techniques. (05)
- D) Write short note on modulation systems. (05)

Q.5 Attempt any two.

- A) Write short note on Frequency modulation. (05)
- B) Write short note on pulse modulation. (05)
- C) Explain TDM. (05)
- D) Explain FDM. (05)

Q.6 Attempt any two.

- A) Explain Noise and its sources. (05)
- B) Write short notes on twisted pair of cables and coaxial cables. (05)
- C) Write short notes on optical fibers. (05)
- D) Explain Geosynchronous satellite communication. (05)

Q.7 Attempt any three.

- A) Explain working of diodes as switch. (05)
- B) Explain n-channel FET. (05)
- C) Explain RC phase shift Oscillators. (05)
- D) Write some difference between AM and FM. (05)
- E) Explain Amplitude modulator circuit. (05)
- F) Write short note on Terrestrial microwave communication. (05)