Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 40958

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

Fourth Semester

Electronics and Communication Engineering

EC 6404 – LINEAR INTEGRATED CIRCUITS

(Common to : Medical Electronics/Robotics and Automation Engineering)

(Regulations 2013)

Time : Three Hours | Maximum : 100 Marks

Answer ALL questions

PART – A (10×2=20 Marks)

1. Enumerate any two blocks associated with Op-Amp block schematic.
2. What are the two methods can be used to produce voltage sources ?
3. What is the function of a phase shift circuit ?
4. Write the other name for clipper circuit.
5. State any two terminologies associated with multiplier characteristics.
6. What is Gilbert Multiplier Cell ?
7. Define Sampling.
8. Write the names of the switches used in MOS Transistors.
9. Name some LC oscillator circuits.
10. Define Line regulation.

PART – B (5×13=65 Marks)

11. a) Discuss about the principle of operation differential amplifier using BJT. (13)

(OR)

b) Explain about Ideal Op-Amp in detail with suitable diagrams. (13)

12. a) i) Describe about voltage follower circuit. (7)

ii) Write short notes on subtractor circuit. (6)

(OR)

b) With a neat diagram explain about V-I converter. (13)

13. a) Discuss briefly about analog multiplier ICs. (13)

(OR)

b) Explain the operation of the basic PLL with a block schematic. (13)

14. a) Enumerate the specifications of D/A converter. (13)

(OR)

b) Describe in detail about the single slope type ADC with neat sketch. (13)

15. a) Explain about sawtooth wave generator with neat sketch. (13)

(OR)

b) Discuss briefly about opto-couplers. (13)

PART – C (1×15=15 Marks)

16. a) Discuss in detail about instrumentation amplifier with suitable diagrams. (15)

(OR)

b) Explain in detail about VCO using suitable diagram. (15)

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