AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING
Electronics and Communication Engineering
B.E./B.Tech. DEGREE MODEL EXAMINATION
Fourth Semester -EC2251 — ELECTRONIC CIRCUITS – II
Time: Three hours Maximum:100 Marks
Answer ALL Questions

PART A — (10 × 2 = 20 Marks)

1.What are the advantages of negative feedback over positive feedback?

2. Draw the frequency response of amplifier with feedback and without feedback.

3. Why RC phase shift is needed in a RC phase shift oscillator?

4. Why LC oscillator is preferred over RC oscillator at radio frequency?

5. What is a synchronously tuned amplifier?

6. Mention the need for stagger tuned amplifier.

7. What do you understand by symmetrical triggering?

8. Why commutating capacitors are used in bistable multivibrator?

9. How the linearity of current sweep generators can be improved?

10. Mention the applications of blocking oscillators.

PART B — (5 × 16 = 80 Marks)

11.(a) Explain with relevant information, how the negative feedback amplifier improves stability, reduces noise and increase the input impedance.

Or

11.(b) Design voltage shumt feedback amplifiers with necessary circuit diagrams

12. (a)   Draw the circuit diagram of Hartley Oscillator and explain its operation. Obtain the expression for its frequency of oscillations.

Or

   (b)   (i)   Draw the circuit diagram of a pierce crystal oscillator and explain its operation.(8)

       (ii)   Explain with suitable example, how logic gates are used as linear amplifiers.(8)

13. (a)   With a circuit diagram, explain the performance of single tuned inductively coupled   amplifier.

Or

    (b)   (i)   Brief about high frequency limitations of amplifiers. (8)

       (ii)   Explain the Hazeltine method of neutralization.(8)

14. (a)   Describe the performance of collector coupled astable multivibrator, with relevant diagrams.

Or

   (b)   (i)   Draw the circuit diagram of complementary transistor monostable multivibrator and explain its operation.(8)

         (ii)   Brief about UTP and LTP of Schmitt trigger.(8)

15. (a)   Explain with suitable circuit diagrams, the performance of monostable blocking oscillator (with base timing).

Or

   (b)   (i)   Explain how saw tooth waveforms are generated using UJT.(8)

         (ii)   Discuss about linearization using constant current circuit.(8)