

ANURAG Engineering College
(An Autonomous Institution)

II B.Tech II Semester Supplementary Examinations, December – 2024

ELECTRONIC CIRCUIT ANALYSIS
(ELECTRONICS AND COMMUNICATION ENGINEERING)

Time: 3 Hours

Max.Marks:60

Section – A (Short Answer type questions)

(10 Marks)

Answer All Questions

	Course Outcome	B.T Level	Marks
1. What is meant by cross over distortion?	CO1	L1	1M
2. What is power amplifier?	CO1	L2	1M
3. Define unloaded and loaded Q of tuned circuit.	CO2	L1	1M
4. What is the effect of cascading single tuned amplifiers on bandwidth?	CO2	L2	1M
5. List the applications of bistable multivibrator.	CO3	L1	1M
6. Define Astable Multivibrators.	CO3	L2	1M
7. Define slope error and displacement error.	CO4	L1	1M
8. Why is time base voltage needed?	CO4	L1	1M
9. How does pulse synchronization enhance relaxation device performance?	CO5	L2	1M
10. How is a sweep circuit used for signal frequency analysis?	CO5	L1	1M

Section B (Essay Questions)

Answer all questions, each question carries equal marks.

(5 X 10M = 50M)

11. A) Explain the operation of class C amplifier with neat diagram.	CO1	L3	10M
OR			
B) A class B push pull amplifier supplies power to a resistive load of 12Ω . The output transformer has a turns ratio of 3:1 and efficiency of 78.5%. Obtain i) Maximum power output, ii) maximum power dissipation in each transistor and iii) Maximum base and collector current. For each transistor, assume $h_{fe} = 25$ and $V_{CC} = 20V$.	CO1	L3	10M
12. A) Compare single tuned and double tuned amplifier	CO2	L3	10M
OR			
B) What is tuned amplifier? Draw and explain double tuned amplifier.	CO2	L3	10M
13. A) Explain about Monostable Multivibrator.	CO3	L2	10M
OR			
B) Write in detail about Schmitt Trigger circuit?	CO3	L3	10M
14. A) Explain the concept of Bootstrap Time base generator.	CO4	L2	10M
OR			
B) Explain the different methods of Linearity improvement in time base generators.	CO4	L3	10M
15. A) How do sampling gates operate, and what are the fundamental principles underlying their functionality in digital signal processing and circuit design?	CO5	L3	10M
OR			
B) What are the advantages and limitations of frequency division in sweep circuits, particularly in comparison to other methods of frequency generation or modulation?	CO5	L3	10M

