Subject code: PC222EC Semester: 2nd

Subject name: Analog Electronics ACY: 2020-2021

CLASS TEST-2

1. Answer all questions from part-A
2. Answer all questions from part-B

PART-A

1. Explain the concept of positive and negative feedback. How does feedback impact gain and bandwidth in electronic circuits?
2. What are the different feedback topologies in electronic circuits? Briefly describe the voltage series and current shunt feedback configurations.
3. Discuss the Barkhausen criterion for oscillation. Provide a qualitative overview of RC oscillators, emphasizing the phase shift and Wien bridge types.

PART-B

1. Explain the significance of positive and negative feedback in electronic circuits. Discuss how different feedback topologies, such as voltage shunt and current series, impact gain and bandwidth.
2. Describe the Barkhausen criterion for oscillation. Provide a detailed qualitative treatment of RC oscillators, including phase-shift and Wien bridge configurations.
3. Analyze the various classes of operation in power amplifiers (Class A, B, and AB). Elaborate on how these classes influence power efficiency and distortion in amplification circuits.