



**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF ENGINEERING

SUMMER TERM / MAKE UP END TERM EXAMINATION

Semester: Summer Term 2019

Date: 25 July 2019

Course Code: ECE 201

Time: 2 Hours

Course Name: Analog Electronics

Max Marks: 80

Program & Sem: B.Tech & III Sem (2017 Batch)

Weightage: 40%

Instructions:

- (i) Read Questions carefully
(ii) All questions are compulsory

Part A

Answer **all** the questions. **Each** question carries **five** marks. (4Qx5M=20)

1. Identify the feedback used in Oscillators. Explain the same with neat diagrams.
2. Differentiate MOSFET from JFET
3. Write a short note on Hartley Oscillator.
4. Draw the symbols of both n-channel and p-channel JFET, D-MOSFET and E-MOSFET.

Part B

Answer **all** the questions. **Each** question carries **ten** marks. (2Qx10M=20)

5. a) Which is the most stable oscillator? Explain it with the help of a neat diagram
b) Write the difference between positive and negative feedback.
6. Explain the working of n-channel D-MOSFET and E-MOSFET with proper block diagram and necessary characteristics.

Part C

Answer **all** the questions. **Each** question carries **ten** marks. (4Qx10M=40)

7. Explain DC load line analysis with necessary diagrams and discuss the importance of Q point.
8. Write a short note on RC phase shift oscillator with necessary circuit diagram and explain how Barkhausen Criterion is satisfied in a RC phase shift Oscillator.
9. Explain Voltage and Current series feedback configurations with neat diagrams.
10. List the advantages of negative feedback in amplifiers and analyze the characteristics of voltage series and shunt, current series and shunt configurations.

