

6214

BOARD DIPLOMA EXAMINATIONS

OCT/NOV-2019

DAEI – THIRD SEMESTER

ELECTRONIC CIRCUITS

Time: 3 hours

Max. Marks: 80

PART – A

3 X 10 = 30

Instructions:

1. Answer **all** questions.
2. Each question carries **Three** Marks.
3. Answer should be brief and straight to the point and should not exceed Five simple sentences.

1. List the three advantages of JFET over BJT.
2. Draw the symbols for JFET and SCR.
3. Define transistor biasing.
4. List the stabilization techniques.
5. List the types of coupling used in amplifiers.
6. Classify power amplifier circuits based on frequency.
7. List any three applications of power amplifiers.
8. Write any three applications of Oscillators.
9. State any three reasons for instability in oscillator circuits.
10. Define Sweep voltage.

PART – B

5 X 10 = 50

- Instructions:*
1. Answer any **Five** questions
 2. Each question carries **TEN** Marks.
 3. Answer should be comprehensive and criteria for valuation is the content but not the length of the answer.

11. Explain the working of UJT, with its characteristics. 6+4M
12. Explain the Transistor as an amplifier in CB, CE mode. 5+5M
13. Draw and Explain the circuits of Direct coupled amplifiers. 4+6M
14. Draw and Explain the circuits of Push-Pull power amplifier. 4+6M
15. a) Distinguish between Voltage amplifier and power amplifier. 5M
b) Explain the Miller's sweep circuits using transistor. 5M
16. Draw and explain the working of Crystal oscillator circuit. 3+7M
17. a) Draw and explain the working of RC Phase shift Oscillator. 3+4M
b) Write the expression for frequency of oscillation of Hartley oscillator. 3M
18. Explain the working of Mono-stable Multi vibrator with waveforms.