

6214

BOARD DIPLOMA EXAMINATIONS

SEPTEMBER/OCTOBER - 2020

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 applications of FET.
2. Draw the symbol of P-channel and N-channel JFET.
3. Define Stability factors.
4. List the types of biasing circuits.
5. Classify the amplifiers based on coupling.
6. List the advantages of push-pull amplifier.
7. Draw the voltage-shunt feedback amplifier.
8. List the essentials of an Oscillator.
9. List the advantages of crystal oscillator.
10. State the fundamental consideration of sweep waveform.

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 construction and working or SCR with its characteristics. 3+4+3
12. a) Explain potential divider method of biasing. 5
b) Determine the Q-point on the DC load line. 5
13. Explain the principle of operation or Two-stage Transformer coupled amplifier with circuit diagram and draw its frequency response. 7+3
14. Explain the Emitter follower circuit and mention its advantages. 5+5
15. a) Distinguish between Negative and Positive feedback. 5
b) Explain the Bootstrap sweep circuit. 5
16. Draw and explain the working of Hartley oscillator circuit. 3+7
17. Draw and explain the working of wein bridge oscillator. 3+7
18. Draw and Explain the working of Astable Multivibrato with waveforms. 3+5+2