

**4415**

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**BOARD DIPLOMA EXAMINATION, (C-14)**  
**JUNE-2019**  
**DAEIE - FOURTH SEMESTER EXAMINATION**  
**ELECTRONIC CIRCUITS**

Time: 3Hours

Max.Marks: 80

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**PART - A****10x3=30M**

**Instructions:** 1) Answer all questions.  
2) Each question carries **three** marks  
3) Answer should be brief & straight to the point and shall not exceed five simple sentences.

- 1) Define stability.
- 2) Draw the basic amplifier circuit using CB mode.
- 3) State the need of multistage amplifier.
- 4) List any three advantages of emitter follower.
- 5) Distinguish between positive feedback and negative feedback.
- 6) Classify the power amplifiers based on configuration.
- 7) List the requisites of an oscillator.
- 8) Draw the circuit of hartley oscillator.
- 9) Draw the circuit diagram of bootstrap sweep generator.
- 10) Classify the multivibrators.

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**PART - B**

**10x5=50**

**\*Instructions:** 1) Answer any **five** questions Each question carries **Ten** marks  
2) Answer should be comprehensive and the criterion for valuation is the content but not length of the Answer.

- 11) a) Explain the concept of DC and AC load line. 5M  
b) Explain the working of diode stabilization technique. 5M
- 12) a) Draw the frequency response of RC coupled amplifier. 5M  
b) Explain the working of an RC phase shift oscillator. 5M
- 13) Explain the principle of operation of differential amplifier with diagram.
- 14) a) Distinguish between voltage amplifiers and power amplifiers. 5M  
b) Explain the principle of negative feedback in amplifiers. 5M
- 15) Explain the working of push pull power amplifier with diagram.
- 16) a) Explain the working of crystal oscillator with diagram. 5M  
b) List the reasons and remedies for instability in oscillator circuits. 5M
- 17) Explain the working of transistor bistable multivibrator with waveforms.
- 18) Draw the circuit of miller sweep generator using transistor and explain.

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