



C09-EC-402

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**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2018
DECE—FOURTH SEMESTER EXAMINATION
ELECTRONIC CIRCUITS—II**

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

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

1. List the advantages of negative feedback amplifiers.
2. Why voltage amplifier cannot be used as a power amplifier?
3. What is the need of heat sink for power transistor?
4. List the applications of oscillators.
5. State the requisites of an oscillator.
6. Define sweep voltage.
7. Draw the circuit of positive-biased clipper.

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8. Define lock range and capture range of PLL.
9. Explain the principle of photodiode.
10. Give the principle of optocoupler.

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain the block representations of four types of negative feedback circuits.
12. Explain the operation of class-B push-pull amplifier and mention its advantages.
13. Draw and explain the working of tuned collector oscillator. What is its frequency of oscillations?
14. Explain the working of transistor crystal oscillator.
15. Explain the working of transistor monostable multivibrator with waveforms.
16. (a) Explain Miller's sweep circuit using OP-AMP.
(b) Explain the principle of working of positive clamper. 5+5=10
17. Draw and explain block diagram of PLL-LM565.
18. Explain the working of astable multivibrator using 555 IC.
