



C09-EC-402

**3468**

**BOARD DIPLOMA EXAMINATION, (C-09)**  
**OCT/NOV—2014**  
**DECE—FOURTH SEMESTER EXAMINATION**  
**ELECTRONIC CIRCUITS—II**

Time : 3 hours ]

[ Total Marks : 80

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**PART—A**

3×10=30

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

1. Classify power amplifiers on the basis of period of conduction.
2. What is meant by negative feedback?
3. List various types of heat sink.
4. Classify oscillator circuits based on fundamental mechanism.
5. Draw the equivalent circuit of crystal.
6. List the applications of current time-base generation.
7. How does a transistor work as a switch in CE mode?
8. What is meant by an optocoupler?

- \* 9. Define the LOCK range of a PLL.
10. Mention the applications of photodiode.

**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. Draw and explain single-tuned and double-tuned amplifier circuits.
12. Draw and explain the working of complementary symmetry push-pull amplifier.
13. Draw and explain the working of Wien bridge oscillator.
14. (a) List the demerits of RC oscillators and LC oscillators. 5  
(b) What is the function of bridge in Wien bridge oscillator? Write an expression for its frequency of oscillation. 5
15. (a) Explain the principle of clamper circuit. 5  
(b) Explain double-ended clipper circuit. 5
16. Draw and explain the working of a transistor bistable multivibrator with waveforms.
17. (a) Explain the application of LCD in seven-segment display. 5  
(b) Explain the application of LED in dot matrix display. 5
- \* 18. Explain how a 555 timer IC is used as monostable multivibrator.

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