



C09-EC-402

**3468**

**BOARD DIPLOMA EXAMINATION, (C-09)  
JUNE—2019  
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. Derive expression for gain of negative feedback amplifier.
2. List IC numbers of power amplifier.
3. State the requirements of tuned power amplifier used in RF circuits.
4. State the requisites of an oscillator.
5. List reasons for instability in oscillator.
6. Distinguish between voltage sweep and current sweep.
7. List applications of clippers and clampers.
8. What is principle of LED?
9. List applications of PLL.
10. List applications of LCD.

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1

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**PART—B**

10×5=50

- Instructions :** (1) Answer *any five* questions.  
(2) Each question carries **ten** marks.  
(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

- 11.** Explain block diagrams of voltage series and voltage shunt feedback amplifiers.
- 12.** Draw circuit of a single-ended class-A power amplifier. Explain its operation.
- 13.** Explain working of Wien bridge oscillator. What is condition for sustained oscillations?
- 14.** Draw and explain working of Hartley oscillator. What is its frequency of oscillations?
- 15.** Explain working of transistor bistable multivibrator with waveforms.
- 16.** (a) Draw double ended clipper circuit and explain. 5  
(c) Explain Bootstrap sweep circuit. 5
- 17.** Explain working of monostable multivibrator using 555 IC.
- 18.** (a) Explain the working of photodiode. 5  
(b) Explain frequency multiplier using PPL. 5

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