



C09-EC-402

**3468**

**BOARD DIPLOMA EXAMINATION, (C-09)  
OCT/NOV—2013  
DECE—FOURTH SEMESTER EXAMINATION  
ELECTRONIC CIRCUITS—II**

Time : 3 hours ]

[ Total Marks : 80

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**PART—A**

**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. List any three IC numbers of power amplifiers.
2. Distinguish between voltage and power amplifiers.
3. Draw the circuit of double tuned amplifier.
4. Mention any three applications of Colpitt's oscillators.
5. What are the requirements of an oscillator?
6. State the principle of Clamper circuit.
7. What are the fundamental considerations of sweep waveform?
8. Mention the applications of LCD.
9. Draw the circuit of monostable multivibrator using Op-Amp.
10. What is the working principle of photoconductive cell?

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**PART—B**

**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.** (a) Draw the block diagram of voltage shunt feedback amplifier and current shunt feedback amplifier.

(b) Explain the effect of negative feedback on input and output impedances of amplifiers.

**12.** Draw the circuit of class B push-pull amplifier and derive an expression for its efficiency.

**13.** (a) List the demerits of RC oscillators.

(b) Explain the working of transistor crystal oscillator with a neat circuit diagram.

**14.** Draw and explain Colpitt's oscillator.

**15.** Draw and explain current sweep circuit.

**16.** Draw and explain the working of Schmitt trigger circuit.

**17.** (a) Draw the block diagram of PLL.

(b) Explain FM demodulator using PLL.

**18.** (a) Explain the operation of LDR with its characteristics.

(b) Explain the construction of LED.

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