



C09-EC-402

3468

BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2014
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) 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. List the applications of power amplifiers.
3. Why a power IC device must have a heat sink?
4. Draw the equivalent circuit of crystal.
5. State the reasons for instability in oscillators.
6. List the applications of clampers.
7. List the applications of voltage time base generation.
8. List the applications of PLL.
9. Mention the applications of phototransistor.
10. Draw the circuit of monostable multivibrator using OpAmp.

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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 criterion for valuation is the content but not the length of the answer.

- 11.** Draw the circuit of class-B push-pull amplifier and derive an expression for its efficiency.
- 12.** (a) Draw and briefly explain the block diagram of voltage shunt feedback. 5
(b) Draw and briefly explain the block diagram of current shunt feedback. 5
- 13.** Draw and explain the working of Wien bridge oscillator.
- 14.** (a) List the merits of RC oscillators and LC oscillators. 5
(b) Draw and explain working of Colpitts oscillator. 5
- 15.** Draw the bootstrap sweep circuit and explain its working.
- 16.** Draw and explain the working of a transistor bistable multivibrator with waveforms.
- 17.** (a) Explain the application of LCD in dot matrix display. 5
(b) Explain the application of LED in seven-segment display. 5
- 18.** (a) Explain the working of photodiode. 5
(b) Explain the working principle of photovoltaic cell. 5

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