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BOARD DIPLOMA EXAMINATION, (C–09)
MARCH/APRIL—2016
DCE—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. What is a class AB power amplifier?

2. Distinguish between voltage and power amplifiers.

3. Define positive feedback and negative feedback.

4. State the conditions for an amplifier to work as an oscillator.

5. Mention any three applications of RC oscillators.

6. List the applications of clippers and clampers.

7. A transistor works as a switch in CE mode. Justify.

8. What is meant by an optoelectronic device?

9. What is the working principle of photoconductive cell?

10. Draw the circuit of astable multivibrator using OP-AMP.

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PART—B 10×5=50

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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)* What is a heat sink? Write its necessity.

(b) List various types of heat sink and their mounting methods.

12. Explain the working of class C tuned power amplifier with the help of circuit diagram.

13. Draw and explain the working of tuned collector oscillator.

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

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

15. *(a)* Define sweep voltage and state its purpose.

(b) Distinguish between voltage and current time base generators and list their applications.

16. Draw and explain the working of transistor monostable multivibrator with waveforms.

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

(b) Explain FM demodulator using PLL.

18. *(a)* Explain the application of LED in dot matrix display.

(b) Explain briefly the application of LED in seven-segment display.

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