C09–EC–**402**

3468

BOARD DIPLOMA EXAMINATION, (C–09)
MARCH/APRIL—2017
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. Distinguish between voltage and power amplifiers.

2. What is meant by heat sink?

3. Define positive feedback and negative feedback.

4. Classify oscillators based on fundamental mechanism.

5. State the demerits of RC oscillator.

6. List different types of clippers.

7. List the applications of time-base generators.

8. Draw the circuit of monostable multivibrator using Op-Amp.

9. What is the meant by an opto-coupler?

10. Define capture range and lock range of PLL.

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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. Draw and explain single-tuned and double-tuned amplifier circuits.

12. Draw and explain the working of complimentary symmetry push-pull amplifier.

13. Draw and explain the working of Hartley oscillator circuit.

14. State the reasons for instability in oscillator circuits and give remedies for them.

15. Draw the Miller sweep circuit and explain its working.

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

17. Explain the working astable multivibrator using 555 IC.

18. *(a)* Explain the application of LCD in seven-segment display.

(b) Explain the application of LED in dot matrix display.

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