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C09–EC–**402**

3468

BOARD DIPLOMA EXAMINATION, (C–09)

OCT/NOV—2016

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. Write any three comparisons between positive and negative feedbacks.

2. Why a voltage amplifier cannot be used as a power amplifier?

3. List the applications of power amplifier.

4. What is the Barkhausen criteria in oscillators?

5. List the applications of oscillator.

6. Classify multivibrators.

7. List the applications of clippers and clampers.

8. Draw the PIN diagram of IC 555.

9. Write the differences between LED and LCD.

10. List the applications of photodiode.

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. *(a)* What is crossover distortion? 3

(b) Explain the working of class-AB power amplifier? 7

12. Explain the working of class-A power amplifier with transformer load and calculate its efficiency.

13. Draw the circuit diagram and explain the working of Colpitts oscillator.

14. *(a)* What are the disadvantages of *R-C* and *L-C* oscillators? 4

(b) Draw the circuit of crystal oscillator and explain its working. 6

15. Draw and explain the working of transistor astable multivibrator.

16. *(a)* Draw the simple current sweep circuit and explain. 5

(b) Explain how a transistor works as a switch in CE mode. 5

17. Explain the working of monostable multivibrator by using IC 555.

18. Draw and explain the block diagram of PLL (IC LM565).

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