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C09-EE-306

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BOARD DIPLOMA EXAMINATION, (C-09)
OCTOBER/NOVEMBER-2018
DEEE- THIRD SEMESTER EXAMINATION

ELECTRONICS ENGG

Time : 3 Hours] [Total Marks: 80

PART-A

3X10=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. Draw the circuit of a Zener diode voltage regulator.
2. State the need for a filter in power supplies.
3. Write the applications of opto-coupler.
4. Write the applications of LED
5. Write the applications of photo transistor.
6. Write the causes of instability of biasing in transistor amplifier.
7. Define the feedback factor.
8. Briefly explain how can Op Amp be used as an Inverter with diagram?
9. Draw the circuit of Tuned collector Oscillator.
10. Draw the pin out diagram of a 555 timer IC.

PART-B

10X5=50

Instructions :

1. Answer any **Five** questions
2. Each question carries **ten** marks.
3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. (a) Explain the operation of HW rectifier using a PN junction diode with waveforms.

    (b) Write the disadvantages of bridge type FW rectifier.

12. (a) Explain the construction of depletion MOSFET with a neat sketch.

    (b) Write the differences between JEFT and MOSFET any 5 aspects.

13. (a) Explain the need for stabilization.

    (b) Explain the collector to base biasing method.

14. Draw and explain the operation of a two-stage transformer coupled amplifier.

15. Draw the practical CE amplifier and explain the function of each component.

16. Explain the working principle of complementary push pull power amplifier.

17. Draw and explain the working of Colpitts Oscillator.

18. Draw and explain the block diagram of a function generator.

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