C09-EE-**306**

3244

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH / APRIL - 2019

DEEE– III SEMESTER EXAMINATION
ELECTRONICS ENGINEERING

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.

1   State the need for a filter in power supplies.

2   Draw the regulation characteristics of a Zener diode.

3   Briefly explain the working principle of UJT.

4   List the applications of LCD.

5   Write the applications of photo diode.

6   Define stability factor.

7   Classify amplifiers based on frequency.

8   Define the terms gain and decibel gain of an amplifier.

9   Classify oscillators based on components used.

10   State the need for an industrial timer.

PART - B   10×5=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   Explain bridge rectifier using LC filter with waveforms.

12   (a)   Explain the construction and working of solar cell.   7

(b)   Write the applications of optocoupler.   3

13   (a)   Explain how transistor works as an amplifier.

(b)   Write the causes of instability of biasing in transistor amplifier.

14   Explain the effect of feedback on gain bandwidth, distortion and noise in amplifiers.

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

16   Briefly explain the use of OPAmp as an Inverter and Summing amplifier.

17   Draw and explain the working of crystal oscillator.

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

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