



C14-EE-305

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4246

**BOARD DIPLOMA EXAMINATION, (C-14)  
OCTOBER/NOVEMBER-2018  
DEEE-THIRD SEMESTER EXAMINATION**

**ELECTRONICS-I**

Time : 3 Hours ]

[ Total Marks: 80

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**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

1. State the properties of resistor.
2. List the specifications of capacitor.
3. Draw the VI characteristics of Zener diode.
4. Draw the circuit diagram of full wave bridge rectifier.
5. List the different types of filters.
6. Draw the symbols of UJT, FET, LED.
7. List any three applications of LED's.
8. State the necessity of proper biasing for amplifier action.
9. List the causes for instability of bias in transistor amplifier.
10. Define gain in terms of decibel and bandwidth.

## PART-B

10X5=50

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*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 the self inductance, mutual induction and co-efficient of coupling.
12. (a) Distinguish between P-type and N-type semiconductors.  
(b) Explain the formation of NPN transistor.
13. Draw and explain the working principle of half wave and full wave rectifier.
14. Explain the working of UJT with a neat diagram.
15. Plot the V-I characteristics of LED, LCD, SCR, SOLAR CELL.
16. Draw and explain potential divider bias method.
17. Explain the working of Transformer Coupled CE amplifier with circuit diagram.
- \* 18. Draw and explain the frequency response characteristics of RC coupled amplifier.

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