



C16-EE-305

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BOARD DIPLOMA EXAMINATION, (C-16)
MARCH/APRIL—2018
DEEE—THIRD SEMESTER EXAMINATION
ELECTRONICS ENGINEERING—I

Time : 3 hours]

[Total Marks : 80

PART—A

10×3=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 intrinsic and extrinsic semiconductors.
2. Explain formation of NPN transistor.
3. Compare center tapped and bridge type full-wave rectifier.
4. State the need of filters and list different types of filters.
5. Explain the principle of LCD.
6. Explain the working principle of phototransistor.
7. What is meant by faithful amplification?
8. Classify the amplifiers according to the load impedance and method of coupling.

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9. Give the ^{*} differences between degenerative and regenerative feedbacks.
10. Draw the block diagrams of current series feedback amplifiers.

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. Draw the circuit and explain the transistor in CE configuration with the help of input and output characteristics.
12. Explain the working of center-tapped full-wave rectifier with circuit diagram and waveforms.
13. Explain the construction and working of UJT with characteristics.
14. Explain the construction and working of FET with characteristics.
15. Explain the method of self-bias and list the advantages.
16. (a) Explain the transistor as an amplifier. 6
* (b) Define the term gain in terms of decibel and bandwidth. 4
17. Explain the working of transformer coupled amplifier with neat circuit diagram and draw its frequency response.
18. Draw the circuit diagram of emitter follower and explain its working and list the applications.
