



C09-EE-306

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BOARD DIPLOMA EXAMINATION, (C-09)

SEPTEMBER/OCTOBER - 2020

DEE—THIRD 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 and shall not exceed *five* simple sentences.

1. State the need for filter and list the different types of filters.
2. Draw the circuit diagram of bridge rectifier.
3. List the applications of LCD.
4. List the advantages of FET over BJT.
5. Draw the *V-I* characteristics of UJT and indicate the regions.
6. Define stability factor.
7. Classify the amplifiers on the basis of frequency and period of conduction.

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8. List the ^{*}different types of coupling methods.
9. Write the conditions for sustained oscillations using Barkhausen's criteria.
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) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain the working of half-wave rectifier and draw the waveforms.
12. Explain the construction and working of a JFET.
13. Explain the potential divider biasing method with diagram.
14. Draw the practical transistor CE amplifier and explain the function of each component.
15. Explain the principle of operation of two-stage transformer-coupled amplifier with circuit diagram.
16. Draw the block diagrams of voltage series, voltage shunt, current series and current shunt feedback amplifiers.
17. Explain the working principle of R-C phase-shift oscillator.
18. Explain the block diagram of a simple CRO.

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