

EEE (Suggestions)

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Chapter- 19

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Article: (19.1 - 19.3), 19.5

Topic:

- (i) Definition and types of FET
- (ii) n-JFET construction working principle.
- (iii) Characteristic curve of n-JFET (Output ^{curve} characteristic)
(402 Page Boylested) (Drain charac.)
- (iv) Difference between n-JFET, p-JFET and their symbols.
- (v) Pinch ~~down~~^{off} voltage.
- (vi) MOSFET and its types and symbol
- (vii) Definition, construction, working principle of n-channel - enhanced MOSFET. Characteristic curve of enhanced MOSFET.

Chapter- 18

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Article: 18.1, 18.2, 18.5, 18.6, 18.7, 18.9, 18.10, 18.11, 18.12

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Topic:

- i) Switching circuit definition and types.
- ii) Switching transistor operation (off, active, sat.) (18.5+18.8)
- iii) Multivibrator definition and its types.
- iv) Astable and monostable multivibrator circuit details and operation.

Chapter- 25

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Topic:

- i) Definition of op-amp and its three stage.
- ii) Ideal characteristics of op-amp.
- iii) Virtual ground concept.
- iv) Inverting op-amp, gain calculation, working.
- v) Non-Inverting " " "
- vi) Adder or summing amplifier, averager amplifier
- vii) op-amp integrator and differentiation.

Chapter- 13

Article: 13.1, 13.3, 13.4

Topic:

- i) What is feedback.
- ii) Positive and negative feedback.
- iii) Principle of negative feedback amplifier.
- iv) Derivation of the gain of negative feedback amplifier.
- v) Show that input impedance of an amplifier increases to negative feedback. ($Z_{in} > Z_{in}$)

Chapter- 14

Topic:

- i) Electronic Oscillator and its essential components.
- ii) Oscillator and its types.
- iii) Different types of transistor oscillator (Only Name)
- iv) Hartley oscillator. (Circuit + Operation + Math)

Math Suggestion

JFET: 19.1, 19.2, 19.3, 19.5

MOSFET: Boystad Page 405, 406 } Segment 01

Switching Circuit: OP Amp \Rightarrow 18.1, 18.2, 18.3,
18.4 \Rightarrow Segment-02

OP-Amp (25.25-25.28, 25.32-25.34, 25.44-25.47,
25.50, 25.51, 25.54, 25.55) \Rightarrow Segment-03

OP-Amp Applications: 13.2-13.5, 14.5, 14.6
 \Rightarrow Segment-04

Non-Linear Circuit: 2 Maths in Sheet.