

VITHALBHAI PATEL & RAJRATNA P.T. PATEL SCIENCE COLLEGE
VALLABH VIDHYA NAGAR

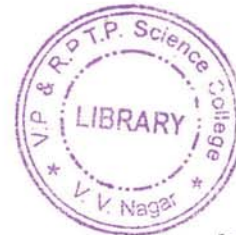
S.Y. B.Sc. SEM: IV
SUB: ELECTRONICS
SUB CODE: US04CELE01

INTERNAL TEST

DATE: 16th March, 2016
TIME: 03:00 pm to 4:30 pm
TOTAL MARKS: 25

Q. 1 Choose the correct answer. [03]

- (1) _____ is a unit of relative power change.
(A) Decibel (C) Volt
(B) Ampere (D) None of above
- (2) In an n-channel Enhancement MOSFET the substrate is made of _____ type of material.
(A) P (C) N
(B) Z (D) None of above
- (3) Common drain circuit is also known as _____.
(A) Source follower (C) Drain follower
(B) Collector follower (D) None of above



Q.2 Answer the following in short. (Attempt any two, each two marks) [04]

- (1) Draw the a.c. equivalent circuit of common source amplifier.
(2) Draw the symbols of n-channel Enhancement MOSFET.
(3) List different FET parameters.

Q.3 Draw a frequency response curve for transistor amplifier and explain the drawing necessary circuit why gain falls of at lower and upper frequency ends. [06]

OR

- Q.3 (A) Draw the family of FET drain characteristics of various levels of gate source bias voltage and explain it. [03]
(B) Explain how you can draw transfer characteristics from FET drain characteristics. [03]

Q.4 Give an account of n-channel Enhancement MOSFET. [06]

OR

Q.4 Give an account of n-channel enhancement depletion MOSFET. [06]

Q.5 Draw the neat circuit of common source amplifier and explain its working also draw necessary wave forms. [06]

OR

Q. 5 Draw the neat circuit of common drain amplifier and explain its working also draw necessary wave forms. [03]