

V.P.& R .T. P. SCIENCE COLLEGE.
V.V.NAGAR

S.Y.B.Sc. (Sem- IIIrd) INTERNAL TEST
Electronic Devices



SUB. CODE:-US03CELE01

DATE:-04/10/2018

TIME:-3:00 pm to 5:00 pm

MARKS-50

Q-1 Choose correct answer

[08]

1. Reactance of inductor is given by $X_L =$ _____
(A) $2\pi fL$ (C) $2fL$
(B) $1/2\pi fL$ (D) None of these
2. Reactance of capacitor is given by $X_C =$ _____.
(A) $2\pi fC$ (C) fC
(B) $1/2\pi fC$ (D) None of these
3. Tunnel diode is also known as _____ diode.
(A) ESAKI (C) Cut-off
(B) Blanking (D) None of these
4. Pure semiconductor material is referred as _____ material.
(A) intrinsic (C) extrinsic
(B) doped (D) None of these
5. Doped semiconductor material is referred as _____ material.
(A) intrinsic (C) extrinsic
(B) un doped (D) None of these
6. Square-law diode modulator uses _____ portion of the characteristic.
(A) linear (C) both (A) and (B)
(B) non-linear (D) None of these
7. Thermistor resistance is changing due to change in _____.
(A) air (C) no air
(B) temperature (D) None of these
8. In amplitude modulation, amplitude of carrier's is _____ as per modulating signal
(A) changing (C) inversely changing
(B) not changing (D) None of these

Q-2 Short answer type question. (any five)

[10]

1. Draw a diagram of wire wound resistor.
2. Draw the diagram of abrupt junction VVC.
3. List different types of inductors and explain any one in brief.
4. Write a note on P-type semiconductor.
5. Define amplitude modulation.
6. Write a note on N-type semiconductor.
7. Draw the basic circuit of linear diode detector.
8. Draw the diagram of principle of voltage variable capacitor diode.

Q.3 List different types of fixed resistor and explain any three in detail. [8]

OR

Q.3 List different types of fixed capacitor and explain any two in detail. [8]

Q.4 Give an account of step voltage response of RL circuit. [8]

OR

Q.4 Give an account of forward bias PN junction diode also draw forward characteristics of silicon and germanium junction diodes. [8]

Q.5 Give an account of amplitude modulation and derive necessary derivations. [8]

OR

Q.5 List different application of diode and explain any two in detail. [8]

Q.6 Write a note on voltage variable capacitor diode. [8]

OR

Q.6 (a) Give an account of Forward Biased Tunnel Diode. [4]

(b) Give an account of Reverse Biased Tunnel Diode. [4]

