

[64] Seat No : _____

No. of Printed Pages : 02

SARDAR PATEL UNIVERSITY V.V.NAGAR
S.Y.B.Sc. (Sem- IIIrd) (CBCS)(NC) (OLD COURSE) EXAMINATION-2019
Electronic Devices

SUB. CODE:-US03CELE01

DATE:25/11/2019

TIME:-2:00 pm to 5:00 pm

MARKS-70

Monday

- Q-1 Choose correct answer [10]
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. The output of a voltage multiplier is _____ volt.
(A) DC (C) AC-DC
(B) AC (D) None of these
 4. Undoped 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. Doner doped material is known as _____ semiconductor.
(A) N-type (C) P-type
(B) Zero-type (D) None of these
 7. Tunnel diode is also known as _____ diode.
(A) ESAKI (C) Cut-off
(B) Blanking (D) None of these
 8. Thermistor has _____ temperature coefficient .
(A) Positive (C) air
(B) Negative. (D) None of these
 9. In amplitude modulation, the amplitude of carrier is _____ as per modulating signal.
(A) changing (C) constant
(B) not changing (D) None of these
 10. Square-law diode modulator uses _____ portion of the characteristic.
(A) linear (C) both (A) and (B)
(B) non-linear (D) None of these

- Q-2 Short answer type question. (any ten) [20]
1. Draw a diagram of wire wound resistor.
 2. Write a note on surface mount resistor.
 3. List different types of inductors.

(1)

C.P.T.O.

4. Write a note on P-type semiconductor.
5. Define 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.
9. Draw the diagram of abrupt junction VVC.
10. Draw the output arrangement of CCD.
11. Define amplitude modulation.
12. Explain temperature effects on reverse bias PN junction diode.

Q.3 List different types of fixed resistor and explain any two in detail. [10]

OR

Q.3 List different types of fixed capacitor and explain any two in detail. [10]

Q.4 Give an account of step voltage response of RL circuit. [10]

OR

Q.4 Give an account of forward bias PN junction diode and reverse biased PN junction diode. [10]

Q.5 Give an account of amplitude modulation and derive necessary derivations. [10]

OR

Q.5 List different application of diode and explain any two in detail. [10]

Q.6 Give an account of Tunnel diode. [10]

OR

Q.6 Give an account of Thermistor. [10]

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