

Diploma Board Examination – February 2022

Course: Diploma in Electronics and Communication Engineering.

Subject : Electronic Devices and Circuits.

QP Code: 133

Time: 3 Hours

Sub Code: 4040310

Max. Marks: 100

*[N.B: (1) Answer all 10 Questions in PART A and each question carries 3 Marks.
(2) Answer division (a) or division (b) of each question in PART B
and each question carries 14 marks.]*

PART – A

1. Write the applications of filters.
2. Draw the common anode and common cathode type LED connection.
3. Define stability factor.
4. What are the applications of FET?
5. How oscillators are classified?
6. Draw and state the frequency response of RC coupled amplifier.
7. What is forward break over voltage in DIAC?
8. What are the applications of SCR?
9. What are the types of clippers?
10. What is multi vibrator and what are its types?

PART – B

11. (a) (i) What is avalanche break down?
(ii) Explain Zener diode as voltage regulator.
(Or)
(b) Explain photo transistor operation and characteristics.
12. (a) (i) Explain the operation of CE transistor as an amplifier.
(ii) Explain transistor as switch.
(Or)

[Turn over.....]

(b) Draw and explain the operation and characteristics of UJT.

13. (a) (i) What is transistor amplifier and what are its types?
(ii) Draw and explain emitter follower.

(Or)

- (b) (i) Explain the condition of oscillation.
(ii) Draw and explain RC phase shift oscillators.

14. (a) (i) Draw the symbol and layered structure of SCR.
(ii) Explain two transistor analogies.

(Or)

- (b) Explain the working principle of TRIAC.

15. (a) (i) Explain voltage doubler circuit.
(ii) Explain voltage tripler circuit.

(Or)

- (b) Draw and explain Schmitt trigger using transistor.
