

BASIC ELECTRONICS

2nd Exam/ECE/ETV/ECE-II/COMP/CSE/IT/EEE/0664/May'19

Duration: 3Hrs.

M.Marks:75

SECTION-A

Q1. Fill in the blanks. 10x1.5=15

- a. The larger the orbit, the _____ is the energy of electrons.
- b. Semiconductor material doped by _____ impurities is termed as n-type.
- c. The point of intersection of DC and AC load line is called _____.
- d. CMOS stands for _____.
- e. Transistor is a _____ terminal semiconductor device.
- f. Zener diode is made to operate in _____ region.
- g. MOSFET stands for _____.
- h. The process by which an impurity is added to semiconductor is called _____.
- i. The potential barrier voltage for Silicon is _____.
- j. The value of resistance of pn junction, when it is forward biased is _____.

SECTION-B

Q2. Attempt any five questions. 5x6=30

- i. What do you mean by Zener Breakdown?
- ii. Explain functioning of Half Wave Rectifier?
- iii. Explain working of Transistors as an amplifier?
- iv. What is the need of Stabilization of operating point?
- v. Explain working of LC Capacitor input filter?
- vi. Explain p- type and n-type semiconductors?
- vii. What is FET? Explain its working?

SECTION-C

Q3. Attempt any three questions. 3x10=30

- a. With the help of diagram, explain forward and reverse biased PN junction?
- b. Explain Bridge wave rectifier with circuit diagram?
- c. Differentiate between conductors, insulators and semiconductors on the basis of energy levels diagrams?
- d. Explain working of transistor with circuit diagram?