S. B. Roll. No...

BASIC ELECTRONICS
2nd Exam/ECE/CSE/IT/MECHATRONICS/0190/Jun'2021
(For 2018 Batch Onwards)

Duration: 1.15Hrs.   **M.Marks:25**

SECTION-A

Q1. Attempt any three questions.   **3x5=15**
   i. Explain the types of Extrinsic Semiconductor.
   ii. Classify the solids on the basis of Energy band Diagram.
   iii. Draw the circuit diagram and explain the working of Half wave rectifier
   iv. Draw and explain the VI Characteristics of Zener Diode and its applications.
   v. Explain the functions of components used in the Filter circuits.
   vi. How transistor can work as an amplifier
   vii. What do you mean by (a) Saturation region (b) Cut off (c) Active Region?

SECTION-B

Q2. Attempt any one question.   **1x10=10**
   a. Draw and explain the input and output characteristics of Common Base. Derive the relation between alpha and beta.
   b. What is the various method of transistor biasing? Draw and explain the circuit diagram of base resistor biasing.
   c. Define operating point of a transistor. What do you mean by stabilization of operating point?
   d. Explain the working principle of FET Amplifier. How will you determine the drain characteristics of a FET?