

B.Sc. Sem.-1 Examination**DSC-M-ELE-113T****Electronics****February 2025****Time : 1-00 Hour]****[Max. Marks : 25**

- Instructions :** (1) All questions are compulsory.
(2) All questions carry equal marks.
(3) Symbol used have their usual meaning.

- 1 Describe the forward and reverse characteristics of a PN Junction diode. 10
OR
What is a clipper circuit? Name the types of clipper circuits and describe in detail positive clipper and negative clipper.
- 2 Explain the operation of PNP and NPN transistors in detail. 10
OR
Draw the circuit of a PNP transistor connected in common emitter configuration and explain the input and output characteristics of the CE circuit.
- 3 Answer (Any Five) in a sentence or two : 5
(1) Name any two techniques for the fabrication of PN junctions.
(2) Write any two applications of a diode.
(3) What is a clamper?
(4) What is operating point of a transistor circuit?
(5) Which are the three configurations in which a transistor can be connected?
(6) What is the main difference between a transistor and a vacuum triode?
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