

B.Sc. Sem.-1 Examination

DSC-M-113T

Electronics

January-2024

Time : 1-00 Hour]

[Max. Marks : 25

Instructions: (1) Symbols used here have their usual meanings.
 (2) Figures to the right indicate marks.

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|---|---|----|
| 1 | (A) Explain working of P-N Junction diode. Also explain with figure its V/I characteristic in detail. | 05 |
| | (B) Explain real diode in forward and reverse direction with figure. | 05 |
| | OR | |
| | (A) Explain in detail about eight important P-N Junction diode ratings or specifications. | 05 |
| | (B) Explain in detail with figure alloy junction and diffused junction in P-N Junction diode. | 05 |
| 2 | (A) Draw & explain PNP & NPN transistor biasing in detail. | 05 |
| | (B) With diagram explain transistor as an amplifier. | 05 |
| | OR | |
| | (A) With diagram explain operation of PNP & NPN transistor. | 05 |
| | (B) Explain common-emitter (CE) PNP transistor amplifier in detail with figure. | 05 |
| 3 | Attempt any Five out of Six. | 05 |
| | (1) A reverse-biased ideal diode looks like an _____ resistance. | |
| | (2) A clipping circuit requires a minimum of two components: a diode and a _____. | |
| | (3) An ideal P-N junction diode acts like a _____ switch. | |
| | (4) The base of transistor is _____ doped. | |
| | (5) Common _____ arrangement is generally used for impedance matching. | |
| | (6) In saturation region operation of a transistor both junctions are _____ biased. | |