



KERALA AGRICULTURAL UNIVERSITY
B. Tech.(Food Technology) 2023 & Previous Admission
II Semester Re Examination – August 2026

Beas.1206

Basic Electronics Engineering (2+1)

Marks: 50
Time: 2 hours

I Fill in the blanks

(10x1=10)

1. An oscillator produces _____ oscillations.
2. A circuit that amplifies the difference between two signals is called _____.
3. A rectifier converts _____ to _____.
4. BJT acts as a switch in _____ and _____ region.
5. _____ is the component of smoothing a filter.
6. The AND operation implies _____.
7. If a trivalent impurity like gallium or indium or aluminium is added to pure germanium or silicon, a _____ results.
8. The efficiency of a full-wave rectifier is _____.
9. During normal working of transistor as amplifier, the emitter diode is _____.
10. The materials which behave like perfect insulators at low temperatures & at higher temperatures, they behave like a good conductors are termed as semiconductor.

II Write short notes on ANY FIVE of the following

(5x2=10)

1. Wein bridge oscillator
2. Half adders
3. Comparator
4. Thermistor
5. full wave rectifier
6. Clipper
7. NOR gate

III Answer ANY FIVE of the following

(5x4=20)

1. Explain and compare zener and avalanche breakdown.
2. Construct the truth table of XOR gate along with the logic symbol.
3. With neat diagram explain working of Hartley oscillator.
4. What is an OP-AMP? Give its symbol and state its various terminals.
5. Explain working principles of radiation pyrometer.
6. Explain the working of manometer used for measurement of low pressure.
7. Draw and explain the VI characteristics of PN junction diodes.

IV Write an essay on ANY ONE of the following

(1x10=10)

1. Compare P-type and N-type semiconductors.
2. Explain working of McLeod Gauge, Pirani Gauge and Ionization Gauge.
