INTERNAL ASSESMENT 2021
KANDI RAJ COLLEGE
DEPARTMENT OF PHYSICS

SEMESTER: 3rd **STREAM: Program Course (General)**
PAPER CODE: PHY-GCC-T-03 **Paper: Analog Systems and Applications**

Full marks: 10

Answer Any Five questions of the following: **5×2=10**

1. What is the basic principle of a photodiode?
2. What is Drift velocity of electrons?
3. Draw the circuit diagram of a full wave Bridge rectifier.
4. Why transistor is called current controlled device?
5. Draw the I-V characteristics of a Zener diode with proper circuit diagram.
6. Draw the circuit diagram of a inverting and non-inverting amplifier using OP-AMP?
7. Define Q-point of a transistor. On what factors Q-point of a transistor depends?
8. Explain the Barkhausen criterion for sustained oscillation in case of an oscillator.

PAPER CODE: PHY-G-SEC-T-01 **Paper: Electrical Circuits and Network Skill**

Full marks: 5

Answer any five questions: **5×1=5**

1. What is a transformer?
2. What is a voltmeter? How it works?
3. Which is more dangerous AC or DC?
4. What are the Star and delta connection?
5. What is a parallel resonant circuit?
6. Write down the basic principle of DC motor.
7. What is power factor in AC circuits?