KERALA AGRICULTURAL UNIVERSITY
B.Tech (Food.Engg) 2014 admission
IInd Semester Final Examination- June /July-2015

Cat. No: Elen.1201   Marks: 50

Title: Basic Electrical Engineering (2+1)   Time: 2 hours

PART-A

Answer all questions   (10 x 1.0 = 10)

1. Emitter base junction in PN junction is formed by _____
2. Modes of operation in bipolar junction transistors are _____ and _____
3. Doping is a process of _____
4. LED stands for _____
5. Full wave rectifier is used for _____

True or False

6. Resistance of a conductor varies directly with its length .
7. The property of a magnetic material by which it opposes the establishment of magnetic flux is called reluctance.
8. Inductor is a device which stores electrical energy in magnetic field.
9. Energy is measured by the instrument volt meter..
10. Higher the SWG number, smaller is the diameter of wire.

PART-B

Answer any five questions only   (5 x 2.0 =10)

1. Define specific resistance and its importance.
2. What is a Zener diode and its practical usage
3. Explain forward bias and reverse bias of PN device
4. Explain self and mutual law of electro magnetic induction.
5. What is FET and where it is used.
6. Define logic gate and mention types of gates.
7. List the accessories for wiring

PART-C

Answer any five questions only   (5 x 4.0 =20)

1. Explain the input and output characteristics of PNP transister
2. Define capacitive filter and explain its applications
3. Explain the Thevenin super position theorem.
4. Differentiate between AC series and parallel circuits.
5. Explain the Boolean theorems.
6. What is a rectifier and explain types of rectifiers.
7. Explain about the types of heaters.

PART-D

Answer any one question only   (1 x 10.0 =10)

1. a. Explain the various passive components of electronics along with their types.
   b. Explain the Kirchoff's laws of electricity and brief about the basics of single phase circuits.
2. a. Explain the power and energy measurement and load estimation in the processing industry.
   b. Explain the working principle of SCR and its applications.