

KERALA AGRICULTURAL UNIVERSITY

B.Tech (Food.Engg) 2013 Admission
IInd Semester Final Examination- June -2014

Cat No: Elen 1201

Marks: 50.00

Title: Basic Electrical Engineering (2+1)

Time: 2 hours

I Answer the following :-

(10 x 1=10)

1. Truth table represents the _____
2. In any closed circuits , algebraic sum of emf s plus algebraic sum of voltage drops is equal to _____
3. The opposition that the magnetic circuit offers to magnetic flux is called _____
4. An alternating voltage may be generated by rotating a coil at constant angular velocity in a _____
5. The ratio of RMS value to the average value of an alternating quantity is known as _____
6. A rectifier converts _____ into _____
7. The SI unit of power and energy are _____ and _____
8. Capacitor is a device which stores energy in _____ field
9. Inductor is a device which stores energy in _____ field
10. Knee voltage of a silicon semiconductor is _____

II Write short notes on any FIVE questions

(5x 2=10)

1. What is a rectifier and mention its types
2. Illustrate PN Junction diode and their types
3. What do you mean by FET and list its characteristics
4. Explain the law of resistance
5. Write short note on wiring plan and wiring accessories
6. Write short note on electric heaters
7. Explain the types of logic gates

III Write short notes on any FIVE questions

(5x 4=20)

1. Explain Demorgan's theorem and its applicability in gate
2. Explain the input and output characteristics of NPN transistors
3. Define SCR and explain its characteristics along with its usage
4. Illustrate energy band diagram of semiconductors and explain its importance
5. Explain Thevanin's theorem and its importance
6. Explain about magnetic circuits along with their applicability
7. Explain the vectorial representation of AC-AC semi and parallel circuits

IV Write an essay on any ONE

(1 x 10=10)

1. Explain the load estimation in an industry along with preparation of wiring plan, execution and bill of cost
2. a) Explain the star and Delta circuits
b) Explain super position theorem
