2006 CALICUT UNIVERSITY I / II SEMESTER B.TECH ENGINEERING DEGREE EXAMINATIONS BASIC ELECTRONICS (EC,BM,)

JUNE 2006

TIME::3 HOUR MARK:100

ANSWER ALL QUESTIONS

PART A [8*5=40]

- I. 1. Explain magnetic focusing.
- 2. How does multimeter measure current? Explain.
- 3. What are the characteristics of inductor?
- 4. Draw the d.c. model of a zener diode and explain.
- 5. Why is biasing required? What are the various types of biasing?
- 6. How is 2 point chosen? Explain.
- 7. Why does PIV differ for different rectifiers?
- 8. Which type of filter is independent of load? Why?

Or

Or

Or

PART B [15*4=60]

- II. 1. Explain, in detail, the electron motion in perpendicular electric and magnetic fields?
- 2. Quantitatively explain electrostatic and magnetic deflection sensitivities.
- III. 1. What are the different types of capacitors? Explain their characteristics.

2. What are three configurations of a BJT <u>amplifier</u>? Compare the four important parameters of all the three.

- IV. 1. Why is the operating point called so? How is this important in the analysis of amplifiers?
- 2. What are the different compensation circuits used in BJT amplifiers? Explain any two.

V. 1. Draw a center tapped FWR and bridge type FWR diagrams and explain their operation. Why is bridge type preferred?

2. Draw a series voltage regulator with short circuit protection and explain the operation.