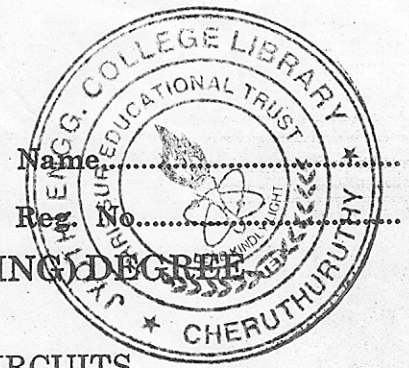**C 15646**

FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, JUNE 2011

EC 09 403/PTEC 09 402—ELECTRONIC CIRCUITS

(2009 Admissions)

Time : Three Hours   Maximum : 70 Marks

Part A

1. Define ripple factor.
2. What is a Cascode amplifier ?
3. What is a relaxation oscillator ?
4. What is a bistable multivibrator ?
5. Define sweep speed.

(5 × 2 = 10 marks)

Part B

Answer any four *questions.*

1. Explain a diode clipper circuit.
2. Discuss the effect of negative feedback on current series feedback circuit on output resistance.
3. Discuss the VI characteristics of UJT.
4. Discuss the principle of working of boostrap sweep circuit.
5. Discuss a method to bias a JFET amplifier.
6. Explain the working of half wave rectifier. Derive the ripple factor.

(4 × 5 = 20 marks)

Part C

1. (a) Discuss the working of a voltage regulator. Discuss a method for short circuit protection.

   Or

   (b) Define stability factor. Derive and discuss the stability factor for common emitter amplifier with emitter bias.

2. (a) Explain the working of emitter follower.

   Or

   (b) Explain the working of class B amplifier.

3. (a) Explain the working of Wien-bridge oscillator.

   Or

   (b) Explain the working of a differential amplifier with active load.

4. (a) Explain the working of a collector coupled monoshot multivibrator.

   Or

   (b) Explain the working of a miller time base generator.

(4 × 10 = 40 marks)