KENYA AERONAUTICAL COLLEGE

DIPLOMA IN AERONAUTICAL ENGINEERING

SUBJECT : TELECOMMUNICATION

CLASS : 09 A (2ND YEAR 1ST TERM)

TIME : 1 HRS

DATE : 9TH OCTOBER, 2012

***Answer all questions***

1. (a)What is meant by intrinsic semi conductor? **(2 marks)**

(b)Name three acceptor and three donor materials for doping of a semi conductor

**(3 marks)**

(c)State four application of a diode **(4 marks)**

1. (a)Draw the V-I characteristic of a junction diode when it is
   * 1. Forward biased and
     2. Reverse biased **(8 marks)**

(b)Using a well labeled diagram explain how the following bipolar junction transistor circuit configuration can be achieved

1. Common base (CB) configuration
2. Common emits (CE) configuration
3. Common collector (CC) configuration **(9 marks)**

(C)Show that the relation between current gain and is given by

 **(4 marks)**