

**LAGOS CITY POLYTECHNIC, IKEJA**  
**SCHOOL OF ENGINEERING AND APPLIED SCIENCE**  
**DEPARTMENT OF ELECT/ELECT ENGINEERING**  
**2015/2016 SEMESTER EXAMINATION**

<b>COURSE TITLE: ELECTRONICS I</b>	<b>NO OF QUESTION: 6</b>
<b>COURSE CODE: EEC 124</b>	<b>TIME: ALLOWED:</b>
<b>2HRS</b>	
<b>FOR WHOM: ND YR I CE, EE</b>	<b>P/T INSTRUCTIONS:</b>
<b>Answer</b>	<b>4</b>

1. (a) What is a **Questions** semiconductor device?  
 (b) Distinguish between NPN and PNP transistor using a block diagram  
 (c) Explain the function of a rectifier diode.
2. (a) Mention and explain two types of the semiconductor.  
 (b) Mention and state the function of 3 semiconductor devices.  
 (c) Differentiate between passive and active electronic devices with two examples each.
3. (a) Mention 3 types of diode and state their application and function.  
 (b) Sketch 3 configuration of transistor amplifier.
4. (a) With aid of appropriate diagram. Explain the biasing procedures for a rectifier diode.  
 (b) Explain biasing procedures for:  
     (i) NPN transistor  
     (ii) PNP transistor
5. (a) Design a simple 9v D.C Regulated power supply that can be used to power a simple Tape radio recorder or public address system.  
 (b) Explain stages involved in the design of a regulated 12V DC power supply.
6. (a) Explain the following:  
     (i) Regulated DC power supply  
     (ii) Extrinsic semiconductor material  
 (b) Draw graphical symbols of the following used in electronic circuit.  
     (i) Zener diode  
     (ii) Light Emitting diode  
     (iii) NPN transistor  
     (iv) Rectifier diode  
     (v) PNP transistor