3. Define the role of emitter, base and collector of a transistor.

The collector is the larger electrical supply, and the emitter is the outlet for that supply.

5. What is the direction of conventional current through the body of a NPN transistor?

The emitter-base junction (n-p junction) is **forward biased** and the base-collector junction (p-n junction) is reverse biased. The emitter current I_E direction which is represented by an arrow shows that the emitter current is flowing outwards the transistor.

. Why NPN transistors are preferred over to PNP transistors?

because electrons have higher mobility than holes and hence high mobility of energy.

7. In how many ways can a transistor be used? Which of these circuits is better?

3 and common emitter

8. Why the input resistance of a transistor is low and output resistance is high?

Due to it, **a small change in emitter current**. This means that a small signal voltage variation at the input of the transistor produces a large emitter current variation. This shown that the input resistance of a transistor is low. ... This shows that the output resistance of the transistor is high.

9.. What is a BJT?

A bipolar junction transistor (**BJT**) is a type of transistor that uses both electrons and electron holes as charge carriers.