

Ans 3

Definition: The transistor in

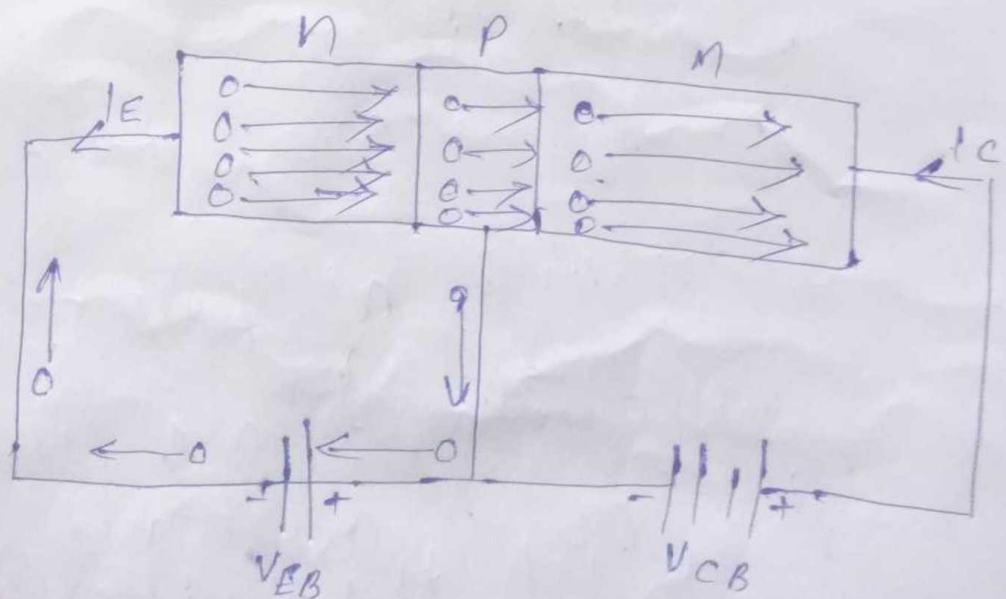
which one n-type material is doped with p-type materials such type of transistor is known as PNP transistor. It is a current controlled device. The small amount of base current controlled both the emitter and collector current.

The PNP transistor has two crystal diodes connected back to back, the left side of the diode is known as the emitter base diode and the right side of the diode is known as the collector base diode.

working of PNP transistor

The emitter-base junction is connected in forward biased due to which the emitter pushes the

holes in the base region. These holes constitute the emitter current when these electrons move into the N-type semiconductor material or base they combined with the electrons. The base of the transistor is thin and very lightly doped hence only a few holes combined with the electrons and the remaining are moved toward the collector space charge layer. Hence develops the base current.



The collector base region is connected in reverse bias. The holes which collect around the depletion region when coming under the impact of negative polarity, collected or attracted by the collector. This develops the collector current. The complete emitter current flows through the collector current I_c .