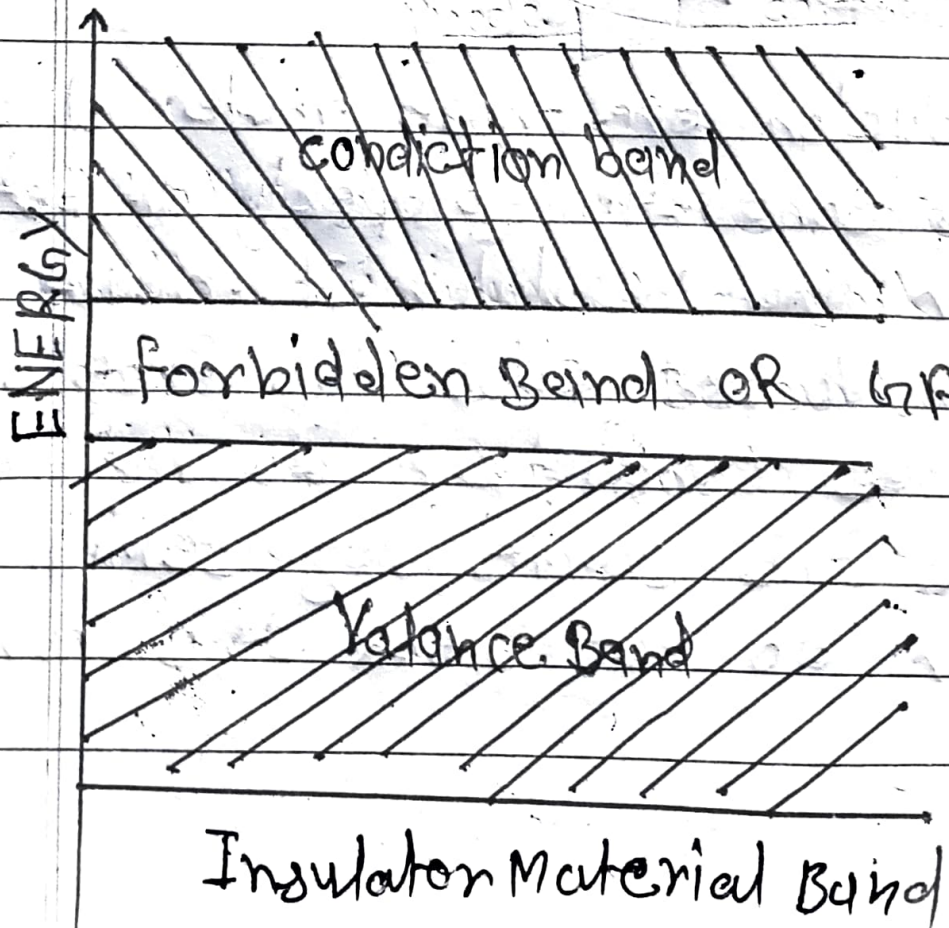
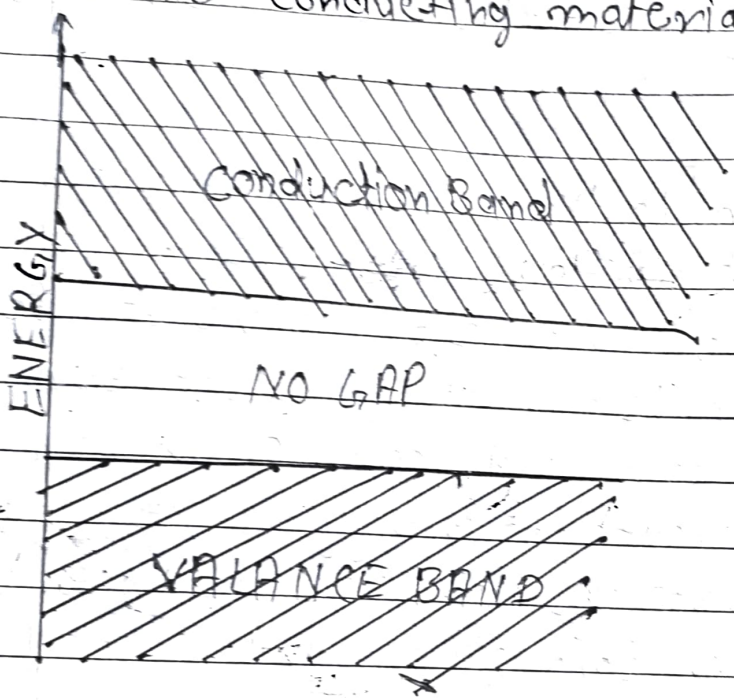
5 // Insulator is that material in which current does not ~~pla~~ flows easily e.g. wood, paper plastic oil mica etc. The reason for insulation is the wide gape between the valance band and conduction band. A large amount of energy is required to shift electrons from the valance band in to the conduction band.



Conductor is those materials in which current flows easily. for example silver Cu and aluminum e.t.c. The reason for the conduction the absence of forbiden between the absence of forbidden band, so very small amount of energy is required for the flow of electric current. There are many free electrons in the conducting materials.



- Semi conductor are those meterial which has the conduction property in between conducter and insulater. It means semi conducter do not allow the free electron to flow as conductor ~~do not block~~ allow in the same way semi conducter do not block the current

as insulator do. The for example silicon boron, carbon etc. The reason for such type of conductor is the small gap between the valence band and condition band. Semi conductors have comparatively less free electron than the conductor.