

## 2024 Ph H1 Q24

Section: Particles and Waves

Topic: Semiconductors

Question Summary

Question asks how increasing temperature affects the conductivity of a semiconductor.

Worked Solution

As temperature increases, more electrons gain energy to cross the band gap into the conduction band, so conductivity increases.

Final Answer: A

Revision Tips

- Semiconductors conduct better when heated.
- Raising temperature promotes valence electrons to conduction band.
- This explains negative resistance coefficient in semiconductors.