**B.Sc. Physical Science (PS)-VI Sem Sec-A**

**Subject: Solid State Physics**

Unit- V: Elementary Band Theory

1. Band theory of metals, insulators, and semiconductors:

<https://www.youtube.com/watch?v=2tCR9ks6_XQ>

1. Kronig-Penny Model:

<https://www.youtube.com/watch?v=w5lRwEIHAQE>

<https://www.youtube.com/watch?v=OQJDzKr10wY>

<https://www.youtube.com/watch?v=OQJDzKr10wY>

1. E-K Relation:

<https://www.youtube.com/watch?v=mUsycB7zZKU>

<https://www.youtube.com/watch?v=fTaaoMZPBnc>

1. Effective Mass:

<https://www.youtube.com/watch?v=q6XFZuwKkp0>

1. Physics of Semiconductors:

<https://www.youtube.com/watch?v=x8byVHp8WL4>

1. Intrinsic and Extrinsic Semiconductors:

<https://www.youtube.com/watch?v=cvXxoiw8cgo>

1. Concentration Carrier Density and Energy Level:

<https://www.youtube.com/watch?v=0R9D7ak1Ngk>

1. Electrical Conduction:

<https://www.youtube.com/watch?v=-_LFz696D5I>

1. Hall Effect and Hall Coefficient:

<https://www.youtube.com/watch?v=dfrQObuh_eQ>

<https://www.youtube.com/watch?v=OYGrqdi_BC8>

Unit 6: Superconductivity

<https://www.youtube.com/watch?v=D-YKCmG8g9A>

Ref: Please follow the book Solid State Physics and Electronics by R.K. Puri and V. K. Babbar.