

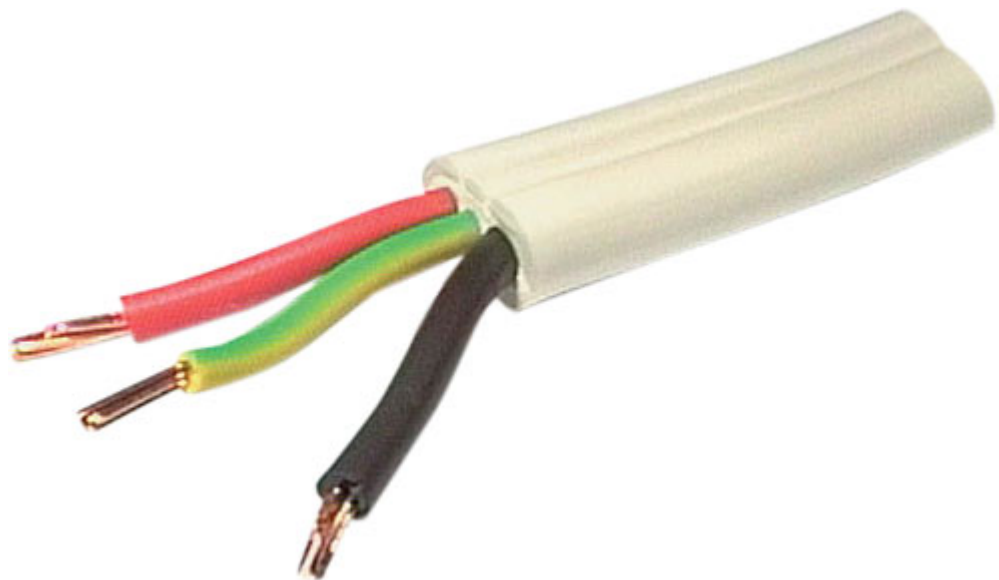


WelTec

Te Whare Wānanga o te Awakairangi

EE3103

**conductors, insulators and
semiconductors assignment 2**



Student name



EE3103 conductor insulator or semiconductor assignment



- 1) What does valence mean in terms of shells?
- 2) What does valence mean in terms of electrons?
- 3) What group of atoms are usually conductors?
- 4) How many electrons are found in the outer shell of a good conductor?
- 5) What is the unit of resistivity?
- 6) Is an electron positively charged?
- 7) What charge is a neutron?
- 8) What is an ion?

- 9) How cold is absolute zero?
- 10) What element has an atomic number of 29?
- 11) Loosely bound electrons refer to what group of elements?
- 12) Define conventional current.

- 13) How does the valence shell appear in a silicon atom.

- 14) Is silicon a base material or a donor material?

- 15) Define an acceptor material.

- 16) What does p type mean?

- 17) What does doping mean?
- 18) Name a pentavalent material.
- 19) Define PTC.
- 20) Where are covalent bonds found?
- 21) Is carbon PTC or NTC
- 22) What is Nichrome?
- 23) Where is tungsten used in the electrical industry?
- 24) Why is copper so popular in the electrical industry?
- 25) Why is aluminium not used as much as copper for conductors?
- 26) Why are rubber cables being replaced with PVC?
- 27) Why is carbon good for brush material in rotating machines?
- 28) Varnish usually covers what conductor in which application?
- 29) Name a fluid insulator commonly used in the electrical industry.
- 30) Name the most common insulator used for cables in buildings.