

Carousel 1

Re-Cap

&

End of carousel 1

Test Revision

Basic principles of electricity

Electricity at works regulations

What is electricity, magnetism, atoms, protons, electrons.

Electromagnetic fields.

Resistance, Voltage, Current

Multiplication Units

Ohms Law

Resistor colour codes, series and parallel networks.

Voltage Levels, rms, mean/average calculations

Resistance, Voltage, Current

Multiplication Units

Ohms Law eg $V=I \times R$ $P=V \times I$

Resistor colour codes

Resistors in series and parallel networks.

Voltage Levels, rms, average and mean calculations

Current calculations

Kirchoff's Law

Power

Power calculations

summary of formulas $P = R \times I^2$

Capacitance and inductance

What is capacitance and inductance, capacitance in series and parallel

Inductive Reactance, Capacitive Reactance, Impedance.

Generation and Distribution

Sources of power, simple generator, distribution UK.

Electrical Safety

Electric shock, testing for dead,

Electric Circuits

Earthing, protection devices.

Electrical Equipment

Selection, portable appliances,

Maintenance of Portable Electrical Equipment

Cables

What is a cable

Different types of cables including SWA and glands.
Types of insulation used, applications.

Harmonisation
Colour codes

Plugs and Sockets

Test Instruments

Types of test instruments, analog and digital, displays.

Safety Precautions

The use of different instruments and how to use them.