

# Level 3 Certificate MATHEMATICAL STUDIES

Paper 1

# **Preliminary Material**

#### Instructions

- This preliminary material will be given to you on or after 1 March.
- You must not take preliminary materials or any associated material into the examination room. A clean copy will be made available.

# Information

The Preliminary Material is to be seen by teachers and candidates only, for use during preparation
for the examination on (DATE). It cannot be used by anyone else for any other purpose, other than
as stated in the instructions issued, until after the examination date has passed. It must not be
provided to third parties.

# Taxation 2013 - 2014

# National Insurance 2013 - 2014

Percentage National Insurance Due	Minimum Weekly Income	Maximum Weekly Income	Minimum Monthly Income	Maximum Monthly Income
Non-contracted out				
Nil		below £109		below £473
0%	£109	£149	£473	£646
12%	£149.01	£797	£646.01	£3454
2%	above £797		above £3454	
Contracted out				
10.6%	£149.01	£770	£646	£3337

Note: A person is '**contracted out**' if they are a member of a contracted out occupational pension scheme or personal/stakeholder pension. They pay a slightly lower rate of National Insurance as the state does not have to pay them as much pension.

A person with a weekly income of, say, £250 a week will pay 12% on the amount above £149

A person having a weekly income of, say, £850 will pay 12% on the amount between £149.01 and £797 plus 2% of the amount above £797

#### Income tax 2013 - 14

Most people have a personal allowance. This is an annual amount of tax-free income. The personal allowance for 2013–2014 was £9440. The rates of income tax you pay depend on how much taxable income you have above your personal allowance.

#### Income tax rates and taxable bands 2013 - 2014

Rate	Taxable Income	
Basic: 20%	£0 – £32 010	
Higher: 40%	£32 011 – £150 000	
Additional: 45%	Over £150 000	

# To calculate your income tax if your annual income is £100 000 or less

Find your taxable income by subtracting your personal tax allowance from your annual income.

You pay income tax at 20% on the first £32 010 of your taxable income.

You pay income tax at 40% on your taxable income over £32 010

#### **Student Loans**

Student loans are paid back at a rate of 9% of gross earnings in excess of £16 365 per year.

# Net pay

Your net pay or take-home pay is the money you earn after any deductions for income tax, National Insurance and student loan repayments.

Turn over

# Waste

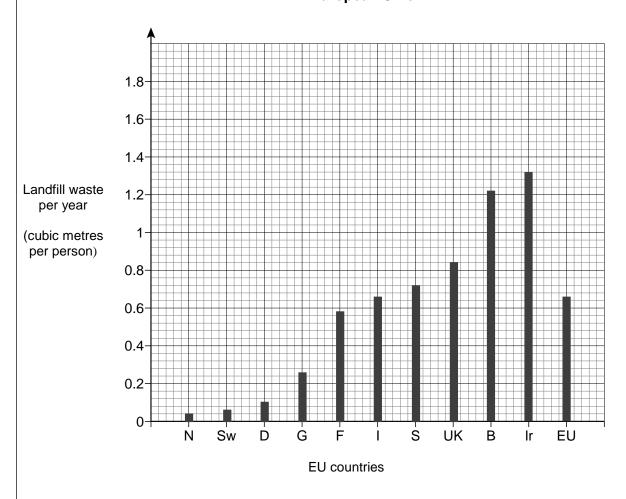
In recent years, people have been encouraged to recycle where possible.

However, where waste cannot be recycled, it is often put into a landfill site.

A landfill site is an area where waste is deposited and left to decay. At landfill sites waste is usually put into a large hole in the ground. Often an existing hole, such as a quarry, is used.

Though statistics are showing a decrease in the amount of waste per person going into landfill, this graph shows how big the problem was nine years ago.

The volume of landfill waste in cubic metres per person in 2005 for several countries in the European Union



N = Netherlands Sw = Sweden D = Denmark

G = Germany F = France I = Italy

S = Spain UK = United Kingdom B = Bulgaria

Ir = Ireland EU = European Union average

In the UK, it is not always easy to find sufficient locations which will hold the amount of waste a town might need to send to landfill.

# **END OF PRELIMINARY MATERIAL**

