



Oxford Cambridge and RSA

Level 3 Certificate Quantitative Problem Solving (MEI)

H867/01 Introduction to Quantitative Reasoning

Pre-release Material

For issue on or after: Tuesday 15 March 2016



NOTES FOR GUIDANCE (CANDIDATES)

- This leaflet contains pre-release material that is needed in preparation for the examination of H867/01 (Introduction to Quantitative Reasoning).
- You will need to read the material carefully. The examination paper will contain questions related to this material. You will be expected to apply your knowledge and understanding of the work covered in H867/01 (Introduction to Quantitative Reasoning) to answer the questions.
- You can seek advice from your teacher about the content of the material and you can discuss it with others in your class. You may also investigate the topic yourself using any resources available to you.
- You will **not** be able to bring your copy of the material, or other materials, into the examination. The examination paper will contain a fresh copy of the material as an insert.
- You will not have time to read this material for the first time in the examination if you are to complete the examination paper within the specified time. However, you should refer to the material when answering the questions.
- This document consists of **2** pages. Any blank pages are indicated.

The UK tax system

A **flat rate** of tax is used in some countries. This means that everybody pays a fixed percentage of their entire income.

The UK tax system is **redistributive**. This means that people with higher incomes pay a larger percentage of their income in tax.

During the tax year 2015/16 in the UK you pay two different types of taxes when you earn money.

- income tax
- national insurance

For income tax the first £10 600 of a worker's annual salary is called the **tax free allowance**. No income tax is paid on this. Income between £10 600 and £42 385 is taxed at the **basic rate** of 20%. Income between £42 385 and £100 000 is taxed at the **higher rate** of 40%. Incomes above £100 000 have slightly more complicated rules.

National insurance is paid by most people at a rate of 12% on income between £8065 and £42 385. Any additional income above £42 385 is taxed at a rate of 2%. No national insurance is paid on income below £8065.

All of these taxes may be reduced by taking part in a **salary sacrifice** scheme. This is where some money is paid before tax into a recognised scheme, such as a pension. This lowers the amount of tax paid.

The income before tax is called the **gross income**. The income after tax and national insurance have been paid is called the **net income**.

For example, Joanna has a gross income of £50 000. She would pay:

- basic rate income tax on £31 785, which is £6357
- higher rate income tax on the next £7615, which is £3046
- basic rate national insurance on £34 320, which is £4118.40
- higher rate national insurance on £7615, which is £152.30.

Her total tax bill is £13 673.70 and her net pay is therefore £36 326.30 per year or around £3027 per month.

If Joanna made a salary sacrifice of £5000 per year into a pension, her new higher rate of income tax and national insurance would only be on £2615. Her new total tax bill is £11 573.70, so her new net monthly pay would be about £2786.



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