

# INSTITUTE AND FACULTY OF ACTUARIES

## EXAMINATION

August 2015

### Subject CA3 – Communications

#### Paper 1

*Time allowed: 1 hour 30 minutes + 15 minutes reading time*

#### **INSTRUCTIONS TO THE CANDIDATE**

1. *You have 15 minutes before the start of the examination in which to read the question. You are strongly encouraged to use this time for reading only, but notes may be made. You then have 1 hour 30 minutes to complete the paper.*
2. *The work you submit MUST be saved in Microsoft Word 2007 format, e.g. using the docx file extension. You may only upload one document and you must not embed files in the document.*
3. *Copies of the Formulae and Tables, Core Reading for subjects CT1–CT8 inclusive and CA1 will be available electronically during the exam. These documents are for use during the exam period only and not for general use. No other material can be referred to.*
4. *In addition to this paper you should have available your own electronic calculator from the approved list, <http://www.actuaries.org.uk/research-and-resources/documents/exam-policies>*
5. *You are not permitted to use the internet to help you during the exam.*
6. *You are required to work through the exam assignment without assistance from another person. You are reminded that by undertaking this exam you are bound by the Institute and Faculty of Actuaries' Examinations Rules and Regulations. By submitting your files you are confirming that all the material is entirely your own work and you wish this to be taken into account for this assessment. Only the first submissions will be accepted.*
7. *Save your work regularly. Saving your work is your responsibility so failure to do so will not be a significant mitigating circumstance. Do NOT log off the application until you receive confirmation of receipt from the Online Education Team.*
8. *At the end of the examination, save your completed assignment and follow the upload instructions that have been provided. Once the exam is over all related material and notes made during the examination must be destroyed.*
9. *If you encounter any difficulties please email [online-exams@actuaries.org.uk](mailto:online-exams@actuaries.org.uk) or telephone the Online Education Team on +44 (0)1865 268255.*
10. *Professional behaviour is mandatory and no material relating to the exam may be disclosed or discussed with others, nor used in a further attempt at the exam. Failure to comply with this will be deemed to be a breach of the examination regulations and may result in disciplinary action.*

**PLEASE NOTE THAT THE CONTENT OF THIS PAPER IS CONFIDENTIAL AND STUDENTS ARE NOT TO DISCUSS OR REVEAL THE CONTENTS UNDER ANY CIRCUMSTANCES.**

You are an actuarial student (Jon) on secondment to the ABC Pension Scheme administration team. The Customer Services Department has received the following letter from a pension scheme member which they have passed onto your manager.

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Customer Services  
ABC Pension Scheme

1 October 2015

Dear Sirs,

Ref: ABC Pension Scheme – member number 2300132

I am suffering a number of medical conditions including stress and have recently received an ill health retirement quotation from you. I find the quotation both confusing and unclear. At a time when I am clearly unwell I would have expected better from the ABC Pension Scheme.

Your letter doesn't make it clear how my pension has been calculated. I also think there must be a mistake in your calculations as I originally joined the ABC Scheme on 3 March 2002. This would make my service up to 30 September 2015, 13 years 213 days. I calculate that this would therefore make my pension £5,495.48 a year. The £5,320.39 a year you have quoted is therefore clearly wrong.

There is a section saying there will be a pension payable to my wife after I die of "the pension shown". I can't see any figures for surviving wife's pension – does that mean the amount will be the same as mine? It also says her pension may be reduced if she remarries presumably after my death but again doesn't give a figure?

There was a booklet included with the letter but it is 64 pages long. In my state of ill-health am I really supposed to read the booklet to try and understand what you are trying to tell me in the quotation?

Yours faithfully,

Mr Steve Martin

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Draft a response to Mr Martin in approximately 600 words.

Your manager has left you the following instructions:

Jon

The attached letter from a member of the ABC scheme reflects the recent changes that have been made to try and streamline and automate the calculations for different categories of member. Whilst none of the information is factually incorrect – the information has not been provided in the simplest way for Mr Martin to understand. The statement is also missing details of the level of spouse's pension.

Please can you draft a suitable response to Mr Martin answering his questions. You should include simple details / examples to show how his pension and the spouse's pension have been calculated. **Please use the actual service dates rather than adjusted service to tie in with the information that Mr Martin has provided.** I will ensure that the customer services department include this letter and our response to the ABC Scheme Change Team so that Mr Martin's concerns can be addressed at their next meeting. I understand that changes are also being considered to the booklet so you don't need to follow the methodology set out in the booklet in your answer to Mr Martin.

I have attached Mr Martin's ill health quotation. I have also asked a junior actuarial student in our team to provide the details of the calculation and to extract the appropriate sections from the scheme booklet for information.

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### Mr Martin's ill health retirement quotation

ABC Pension Scheme	
Personal Details	
Name	Mr Steve Martin
Member Number	2300132
Date of birth	24 February 1957
Marital status	Married
Your earnings used to work out pension	
Final Pensionable Earnings	£24,269.21
Your service used to work out pension	
Last day of service used to work out your benefits	30 September 2015
Pensionable Service	11y 274d
Enhancement to Pensionable Service	1y 147d
Your pension	
Higher tier ill health retirement pension	£5,320.39

  

Widow(er)'s pension
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If you leave a surviving husband or wife or civil partner they will get the pension shown. But if they then remarry, enter into a civil partnership or live with someone else as husband and wife or civil partner, we will reduce their pension to the level of a partner's pension.

Further details can be found in the ABC Scheme Pension booklet that has been enclosed with this statement.

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## Details of Mr Martin's calculations from the actuarial student

### Higher tier ill health retirement pension (section 4.2 of the booklet)

NPD = 24 February 2017 (Age 60)

Final Pensionable Earnings = £24,269.21 = FPE

Date joined ABC Pension Scheme = 03/03/2002

There are 3 periods of service relevant to the calculation of the higher tier ill health retirement pension:

Pre 01/07/2009 service = 7y 121d = 7.331507y (period 03/03/2002 – 30/06/2009)

Post 30/06/2009 service = 6y 092d = 6.252055y (period 01/07/2009 – 30/09/2015)

Prospective future service = 1y 147d = 1.402740y (period 01/10/2015 – 24/02/2017)

Enhancement to Reckonable Service = Minimum (1.402740;  $50\% \times (7.331507 + 6.252055)$ )  
= Minimum (1.402740; 6.791781) = 1.402740y

Higher Tier ill health retirement pension =  $24269.21 \times [(7.331507 / 80) + (6.252055 / 60) + (1.402740 / 60)] = £5,320.39$  p.a.

Adjusted Pensionable Service (adjusted to reflect 60ths accrual rate) =  $(7.331507) \times \frac{3}{4} + (6.252055) = 11.750685 = 11y 274d$  (quoted in original ill-health quotation).

### Widow(er)'s pension (section 6.3 of the booklet)

Widow(er)'s pension =  $50\% \times 5320.39 = 2,660.195$

Partner's pension (adjustment to exclude service pre 1 July 2009) =  $50\% \times [5320.39 - 24269.21 \times (7.331507 / 80)] = 1,548.1319$

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## Relevant details from the pension scheme booklet

### Section 3.6 – Age Retirement

Age Retirement Pension is provided to current active members of the scheme when they reach Normal Pension Age.

Age Retirement Pension is calculated as  $1/60^{\text{th}}$  of Final Pensionable Earnings for each year of "Pensionable Service".

For members of the scheme before 1 July 2009 the Age Retirement Pension accrued at a rate of  $1/80^{\text{th}}$  for Pensionable Service before that date. If Pensionable Service before 1 July 2009 is reduced by one quarter this reflects the change in the scheme's accrual rate from 80ths to 60ths. This simplifies the calculation of Age Retirement Pension under the scheme as an accrual rate of 60ths can be used throughout.

### Section 4.1 – Lower Tier Ill Health Retirement

Lower Tier Ill Health Retirement Pension is provided to current active members of the scheme who are "in the opinion of the scheme medical adviser, capable of finding gainful employment within 5 years of leaving in ill-health".

The Lower Tier Ill Health Retirement Pension is calculated in the same manner as the Age Retirement Pension (Section 3.6) based on Final Pensionable Earnings and "Pensionable

Service” (at the date of ill health retirement). The Lower Tier Ill Health Retirement Pension can be paid at any age and is not reduced on account of early payment before Normal Pension Date.

#### Section 4.2 – Higher Tier Ill Health Retirement

Higher Tier Ill Health Retirement Pension is provided to current active members of the scheme who are “in the opinion of the scheme medical adviser, incapable of finding any gainful employment in the future”.

The pension can be paid at any age and is not reduced on account of early payment before Normal Pension Date.

The pension is calculated in the same manner as the Lower Tier Ill Health Retirement Pension (Section 4.1) but also benefits from an enhancement to service in the calculation of “Pensionable Service”. The enhancement to service is the period between the date of ill health retirement and the member’s Normal Pension Date. The enhancement is subject to a maximum of 50% of the “Pensionable Service” that a member has already accrued in the scheme at the date of ill health retirement.

#### Section 6.3 – Death after retirement

An adult dependant pension is payable to an eligible widow, widower, civil partner or declared partner if the member had at least 2 years’ scheme membership. However, the pension for a civil or declared partner is worked out using service from 1 July 2009 only.

The adult dependant pension is 50% of the pension in payment to the member at the time of death (adjusted to exclude service before 1 July 2009, if applicable).

The adult dependant pension is reduced to the level payable to a civil or declared partner where the adult dependant marries, enters into a civil partnership or lives with someone else as though they were married to or in a civil partnership following the member’s death.

#### Appendix – Definitions

Final Pensionable Earnings	The best earnings in the last 5 complete Scheme Years. Where Final Pensionable Earnings do not represent the last Scheme Year they are indexed in line with prices inflation to the end of the last complete Scheme Year.
Normal Pension Date	The day that the member reaches age 60.
Pensionable Service	Calculated in complete years and days as a fraction of a year.
Scheme Year	Year starting on 1 April and ending on following 31 March.

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**All the details provided in the question are factually correct for the purpose of the question. You are not expected to consider any options that may be available on retirement or any tax or other legislative issues.**

**END OF PAPER**