

Chartered  
Insurance  
Institute

# P61 – Life, critical illness and disability underwriting

## Diploma in Insurance

October 2019 Examination Guide

### SPECIAL NOTICE

Candidates entered for the April 2020 examination should study this Examination Guide carefully in order to prepare themselves for the examination.

Practise in answering the questions is highly desirable and should be considered a critical part of a properly planned programme of examination preparation.

## P61 – Life, critical illness and disability underwriting

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## IMPORTANT GUIDANCE FOR CANDIDATES

### Introduction

The purpose of this Examination Guide is to help you understand how examiners seek to assess the knowledge and skill of candidates. You can then use this understanding to help you demonstrate to the examiners that you meet the required levels of knowledge and skill to merit a pass in this unit.

### Before the examination

#### Study the syllabus carefully

This is available online at [www.cii.co.uk](http://www.cii.co.uk). All the questions in the examination are based directly on the syllabus. *You will be tested on the syllabus alone*, so it is vital that you are familiar with it.

There are books specifically produced to support your studies that provide coverage of all the syllabus areas; however, you should be prepared to read around the subject. This is important, particularly if you feel that further information is required to fully understand a topic, or an alternative viewpoint is sought. The reading list which can be found with the syllabus provides valuable suggestions.

#### Read widely

It is vital that your knowledge is widened beyond the scope of one book. *It is quite unrealistic to expect that the study of a single study text will be sufficient to meet all your requirements.* While books specifically produced to support your studies will provide coverage of all the syllabus areas, you should be prepared to read around the subject. This is important, particularly if you feel that further information is required to fully understand a topic, or an alternative viewpoint is sought. The reading list which can be found with the syllabus provides valuable suggestions.

#### Make full use of the Examination Guide

This Examination Guide contains a full examination paper and model answers. The model answers show the types of responses the examiners are looking for and which would achieve maximum marks. However, you should note that there are alternative answers to some question parts which would also gain high marks. For the sake of clarity and brevity not all of these alternative answers are shown.

This guide and previous Examination Guides can be treated as 'mock' examination papers. Attempting them under examination conditions as far as possible, and then comparing your answers to the model ones, should be seen as an essential part of your exam preparation. The examiner's comments on candidates' actual performance in each question provide further valuable guidance. You can obtain free copies of the most recent Examination Guides online at [www.cii.co.uk](http://www.cii.co.uk).

**Know the structure of the examination**

Assessment is by means of a three hour paper.

**Part 1** consists of 14 compulsory questions, worth a total 140 marks.

**Part 2** consists of 2 questions selected from 3, worth a total of 60 marks.

Each question part will clearly show the maximum marks which can be earned.

**Read the current Diploma in Insurance Information for Candidates**

Details of administrative arrangements and the regulations which form the basis of your examination entry are to be found in the current Qualifications Brochure, which is *essential reading* for all candidates. It is available online at [www.cii.co.uk](http://www.cii.co.uk).

## In the examination

### The following will help:

#### Spend your time in accordance with the allocation of marks

- The marks allocated to each question part are shown on the paper.
- If a question has just two marks allocated, there are likely to be only one or two points for which the examiner is looking, so a long answer is a waste of time.
- Conversely, if a question has 12 marks allocated, a couple of lines will not be an adequate answer.
- Do not spend excessive time on any one question; if the time allocation for that question has been used up, leave some space, go on to the next question and return to the incomplete question after you have completed the rest of the paper, if you have time.

#### Take great care to answer the question that has been set

- Many candidates leave the examination room confident that they have written a 'good' paper, only to be surprised when they receive a disappointing result. Often, the explanation for this lies in a failure to fully understand the question that has been asked before putting pen to paper.
- Highlighting key words and phrases is a technique many candidates find useful.
- The model answers provided in this Examination Guide would gain full marks. Alternative answers that cover the same points and therefore answer the question that has been asked would also gain full marks.

#### Tackling questions

Tackle the questions in whatever order feels most comfortable. Generally, it is better to leave any questions which you find challenging until you have attempted the questions you are confident about. Candidates should avoid mixing question parts, (for example, 1(a)(i) and (ii) followed by 2(b)(ii) followed by 1(e)(i)) as this often leads to candidates unintentionally failing to fully complete the examination paper. This can make the difference between achieving a pass or a narrow fail.

It is vital to label all parts of your answer correctly as many questions have multiple parts to them (for example, question 1(a) may have parts (i), (ii) and (iii)). Failure to fully distinguish between the separate question parts may mean that full credit cannot be given. It is also important to note that a full answer must be given to each question part and candidates should not include notes such as 'refer to answer given in 1(b)(i)'.

#### Answer format

Unless the question requires you to produce an answer in a particular format, such as a letter or a report, you should use 'bullet points' or short paragraphs. The model answers indicate what is acceptable for the different types of question.

Where you are asked to perform a calculation, it is important to show **all** the steps in your answer. The majority of the marks will be allocated for demonstrating the correct method of calculation.

Provided handwriting is legible, candidates will **not** lose marks if it is 'untidy'. Similarly, marks are not lost due to poor spelling or grammar.

**Calculators**

If you bring a calculator into the examination room, it must be a silent, battery or solar-powered, non-programmable calculator. The use of electronic equipment capable of being programmed to hold alphabetical or numerical data and/or formulae is prohibited. You may use a financial or scientific calculator, provided it meets these requirements.

## EXAMINER COMMENTS

### Question 1

A very straightforward question about ulcerative colitis. The majority of candidates achieved high marks on this question.

### Question 2

An important point of this question was that the great majority of applicants who have had the condition of mitral valve prolapse, or 'floppy' mitral valve, diagnosed have a very mild disorder which in most cases does not require an increased premium for any insurance. Most candidates did not mention this.

### Question 3

Candidates were not able to correctly state the effects, long and short-term, that multiple fractures might have on people, particularly elderly people who have osteoporosis.

### Question 4

Candidates who were able to describe three characteristic categories of symptoms achieved high marks on this question however, some candidates' answers were insufficient in detail which led to a loss of marks.

### Question 5

Few candidates could provide a correct explanation of T2 N0 M0 in part (a). In part (b), management by 'watch and wait' for low grade tumours is now more popular and causes some problems for insurance.

### Question 6

This question was well answered by the majority of candidates.

### Question 7

Some candidates thought amenorrhoea was the cause of the high prolactin level, but it is the other way around. In part (c), the important point is that it is the underlying cause which is crucial for insurance.

### Question 8

Candidates' answers would have benefitted from mentioning the importance of pulmonary function testing on applicants with chronic obstructive pulmonary disease. These tests can give both a 'snapshot' impression and a guide to the progress of the disease if performed serially.

### Question 9

This was a straightforward question which was well answered by most candidates.

### Question 10

Few candidates gained high marks on this question. Underwriters often look at the results of simple blood tests and iron deficiency is a very common problem.

**Question 11**

Many candidates were not familiar with testing for activity of the hepatitis B virus in a patient who is known to be infected. Standard liver function tests are not adequate.

**Question 12**

Part (a) was answered quite well but many candidates did not know how to measure renal function.

**Question 13**

Some candidates confused the Access to Medical Reports Act 1988 and regulations concerning what doctors are allowed and not allowed to put into their general practitioner's reports.

**Question 14**

The stronger candidates answered this question reasonably well.

**Question 15**

This was a very popular Part II question. It required a knowledge of most aspects of diabetes likely to be seen by underwriters. On the medical side, generally, candidates displayed a good knowledge.

Candidates' answers on the underwriting side of the question would have benefited from a better understanding of the basic system of underwriting diabetes, which is to calculate a premium which is based on the age of the applicant and the number of years they have had diabetes. Added to this is the presence of adverse features of diabetes and comorbidities.

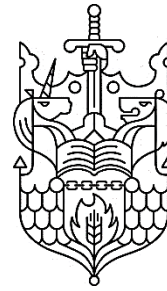
**Question 16**

Candidates' answers to this Part II question were quite interesting as, based on the information given, there were many differing but valid opinions. Most candidates obtained high marks.

**Question 17**

Very few candidates attempted this Part II question. It tested more financial challenges than other questions in the examination paper.





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# P61

## Diploma in Insurance

### Unit P61 – Life, critical illness and disability underwriting

October 2019 examination

#### Instructions

- Three hours are allowed for this paper.
- **Do not begin writing until the invigilator instructs you to.**
- **Read the instructions on page 3 carefully before answering any questions.**
- Provide the information requested on the answer book and form B.
- You are allowed to write on the inside pages of this question paper, but you must **NOT** write your name, candidate number, PIN or any other identification anywhere on this question paper.
- The answer book and this question paper must **both be handed in personally by you** to the invigilator before you leave the examination room. **Failure to comply with this regulation will result in your paper not being marked and you may be prevented from entering this examination in the future.**

## Unit P61 – Life, critical illness and disability underwriting

### Instructions to candidates

Read the instructions below before answering any questions

- **Three hours** are allowed for this paper which carries a total of 200 marks, as follows:

Part I	14 compulsory questions	140 marks
Part II	2 questions selected from 3	60 marks

- You should answer **all** questions in Part I and two out of the three questions in Part II.
- You are advised to spend no more than two hours on Part I.
- Read carefully all questions and information provided before starting to answer. Your answer will be marked strictly in accordance with the question set.
- The number of marks allocated to each question part is given next to the question and you should spend your time in accordance with that allocation.
- You may find it helpful in some places to make rough notes in the answer booklet. If you do this, you should cross through these notes before you hand in the booklet.
- It is important to show each step in any calculation, even if you have used a calculator.
- If you bring a calculator into the examination room, it must be a silent, battery or solar-powered non-programmable calculator. The use of electronic equipment capable of being programmed to hold alphabetic or numerical data and/or formulae is prohibited. You may use a financial or scientific calculator, provided it meets these requirements.
- Answer each question on a new page. If a question has more than one part, leave several lines blank after each part.

**PART I****Answer ALL questions in Part I****Note form is acceptable where this conveys all the necessary information**

1. Describe briefly **four** possible features of ulcerative colitis that may lead to moderate to high ratings being applied for life insurance. **(8)**
  
2. An applicant for life insurance, aged 60, states that he has recently been diagnosed as having mitral valve prolapse.
  - (a) Outline:
    - (i) why this condition arises; **(2)**
    - (ii) how the condition affects blood flow through the mitral valve. **(2)**
  - (b) Explain briefly your approach to underwriting this applicant. **(4)**
  
3.
  - (a) Outline what happens to bones affected by osteoporosis. **(2)**
  - (b) State **three** groups of people who are particularly susceptible to develop osteoporosis. **(3)**
  - (c) State **three** risk factors associated with osteoporosis. **(3)**
  
4.
  - (a) Describe briefly **three** characteristic categories of symptoms that are frequently seen in post-traumatic stress disorder (PTSD). **(6)**
  - (b) Explain briefly the possible risks of an applicant for life and income protection insurance who has disclosed PTSD. **(6)**

5. A man, aged 55, applies for life, critical illness and income protection. He was diagnosed with carcinoma of the prostate one year ago. Currently he has a PSA of 10, staging of T2 N0 M0, and a Gleason score of 6.
- (a) Explain briefly the following terms:
- (i) PSA. (2)
  - (ii) T2 N0 M0. (3)
  - (iii) Gleason score. (2)
- (b) Describe briefly the types of disease management people may be offered with carcinoma of the prostate. (4)
- (c) Explain briefly your underwriting approach to this applicant. (4)
6. Outline the purpose of exclusions applied at the underwriting stage for the following policy types. *For **each** policy type you should quote an example **and** comment on the advantages **and** disadvantages.*
- (a) Life. (3)
  - (b) Critical illness. (3)
  - (c) Income protection. (3)
7. A woman, aged 35, has developed amenorrhoea with raised prolactin level in a blood sample.
- (a) Identify the major role of prolactin. (2)
  - (b) State **three** situations where the prolactin level is raised. (6)
  - (c) Explain briefly your approach to underwriting this applicant for life, critical illness and income protection insurance. (5)

8. (a) Identify **three** early features of chronic obstructive pulmonary disease (COPD). (3)
- (b) State **three** features which may be present in advanced COPD. (3)
- (c) Explain how you would assess an applicant who has COPD for life and income protection insurance. (8)
9. An applicant for a life policy is known to be positive for human immunodeficiency virus (HIV).
- State **four** features you would look for in your assessment of this applicant for possible acceptance. (8)
10. (a) State the appearance of red blood cells in iron deficiency anaemia. (2)
- (b) Identify **three** different ways in which iron deficiency may occur. (6)
11. Explain how blood test results help an underwriter to decide whether an applicant disclosing hepatitis B has active disease likely to cause increasing liver damage. (9)
12. An applicant for a life policy has had a renal transplant.
- (a) Identify **six** features which should be present before the application can be accepted. (6)
- (b) Describe briefly **two** common kidney function tests. (6)
13. Explain briefly the constraints placed on a life and disability underwriter when requesting a general practitioner's report by the Access to Medical Reports Act 1988. (8)
14. Describe briefly **two** circumstances where using the numerical rating system may be inappropriate for life insurance and identify the alternatives. (8)

## PART II

**Answer TWO of the following THREE questions**  
**Each question is worth 30 marks**

- 15.** A woman, aged 40, applies for a life and critical illness policy to cover a loan for £140,000 for a 15-year term to increase her mortgage on the purchase of a larger house. She is the manager of a bank.

The applicant discloses she has type 1 diabetes which was first diagnosed 25 years ago. Her body mass index is 31 and her blood pressure is 135/80. She has never smoked and drinks almost no alcohol. She attends a diabetic clinic where several changes in her insulin regime have been necessary. She has had no work absences or hospital admissions in the last five years.

At present she is taking an angiotensin converting enzyme (ACE) inhibitor and a lipid lowering agent, in addition to her insulin.

- (a)** State the medical information you would need to underwrite this applicant, explaining why this information is necessary. **(16)**
- (b)** State the function of an ACE inhibitor. **(2)**
- (c)** Explain how any adverse features that might emerge from the medical evidence collected would influence your assessment of this applicant and the likely acceptance terms. **(12)**

- 16.** A man, aged 32, applies for a 20-year life and critical illness policy for £350,000 with total permanent disability. He owns and runs a bar.

He discloses episodes of depression that started when he was a teenager. He had a back injury playing rugby five years ago and had to give up contact sports. He is a non-smoker and drinks 20 units of alcohol a week.

- (a) (i)** Outline how you would collect the medical evidence required to underwrite this application. **(4)**
- (ii)** Explain how the information identified would help you to assess the risk. **(12)**
- (b)** Explain briefly how the risk factors disclosed could affect his daily work. **(4)**
- (c)** Explain, giving reasons, the likely acceptance terms for life, critical illness and total and permanent disability. **(10)**

- 17.** A man, aged 45, applies for a whole of life policy and an income protection policy to age 65. He discloses mild ankylosing spondylitis.

He is a self-employed information technology consultant. His earnings in the last 12 months were £250,000 with, in addition, a bonus of £100,000.

- (a)** Explain how the maximum sum assured would be calculated for his:
- (i)** whole of life policy; **(8)**
  - (ii)** income protection policy. **(6)**
- (b)** State the information you would need to assess the financial risk for both policies and why you would need it. **(6)**
- (c)** Identify **five** features of ankylosing spondylitis which could impact on life or income protection insurance. **(10)**

## TEST SPECIFICATION

<b>October 2019 Examination – P61 Life, critical illness and disability underwriting</b>	
<b>Question</b>	<b>Syllabus learning outcome(s) being examined</b>
1	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
2	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
3	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
4	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
5	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
6	1 – Understand the mechanics of life and disability underwriting 3 – Understand non-medical risk factors
7	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
8	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
9	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
10	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
11	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
12	2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
13	4 – Understand the impact of legal and regulatory considerations
14	1 – Understand the mechanics of life and disability underwriting
15	1 – Understand the mechanics of life and disability underwriting 2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
16	1 – Understand the mechanics of life and disability underwriting 2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases
17	1 – Understand the mechanics of life and disability underwriting 2 – Understand the features of the major systems of the body and the underwriting approach to disorders and diseases 3 – Understand non-medical risk factors



**NOTE ON MODEL ANSWERS**

The model answers given are those which would achieve maximum marks. However, there are alternative answers to some question parts which would also gain high marks. For the sake of clarity and brevity not all of these alternative answers are shown. An oblique (/) indicates an equally acceptable alternative answer.

**Model answer for Question 1**

*Any four of the following:*

- Total colitis means the involvement of the whole colon rather than only the lower part of the left colon and rectum.
- The need for long periods on steroids or other immune therapy rather than milder forms of treatment, for example salazopyrine. The need for 'rescue therapy' would suggest the disease is severe.
- The need for multiple hospital admissions due to 'flare-ups' of the disease. This indicates that the disease is persistent and likely to be associated with a poor work record.
- Manifestations outside the colon may lead to disability or life risk. Examples would be pyoderma gangrenosum, sclerosing cholangitis and iritis.
- If the disease is prolonged (10 years or more), in applicants with total colitis, it increases the risk of colon cancer.

**Model answer for Question 2**

- (a) (i) Mitral valve prolapse occurs when there is degeneration of the connective tissues round the mitral valve, often in older people, leading to failure of the valve to close properly.
- (ii) There is regurgitation of blood back through the mitral valve during ventricular systole. In most cases this is trivial.
- (b) The majority of cases are acceptable at standard rates. Occasionally there is more severe regurgitation. The ratings will depend on the degree of mitral regurgitation. There is a small risk of embolism, but this is not generally sufficient to warrant an extra rating.

**Model answer for Question 3**

- (a) In bones affected by osteoporosis, the protein matrix of the bone is reduced and the mineral content of the bone is reduced as a result.
- (b)
- Elderly people.
  - Post-menopausal women.
  - People treated with steroids.
- (c) *Any three of the following:*
- Vertebral and long bone fractures.
  - A loss of function.
  - A risk of undiagnosed myeloma.
  - Complications due to hormone replacement therapy (HRT).

**Model answer for Question 4**

- (a)
- Intrusions – re-experiencing the event through the medium of dreams, flashbacks or memories of the event. The experiences intrude on a subject's thoughts.
  - Avoidance – the person avoids events, places, activities, people or thoughts about the event. The person becomes emotionally detached and often depressed.
  - Increased arousal – the person is hyper-vigilant so has difficulty with sleep, poor concentration and an exaggerated startled response.
- (b) Treatment for post-traumatic stress disorder (PTSD) may be difficult to administer, especially if 'avoidance' is the prominent category of symptom. There may be depression and a risk of suicide. There are also risks of alcoholism, drug taking and social dislocation. 30% of people never fully recover from PTSD and there is a substantial risk that they will never be able to hold down a permanent job.

**Model answer for Question 5**

- (a) (i) Prostate specific antigen (PSA) is a substance found in the blood of normal male subjects, usually at a level of 4 or less. The level is raised in disorders of the prostate, including prostate cancer.
- (ii) T2 the tumour is confined to the gland. N0 means there is no detectable spread of cancer to the lymph nodes. M0 means there are no distant metastases detected.
- (iii) The Gleason score is the graded microscopical appearance of the cells of the gland taken from two separate areas at prostate biopsy.
- (b) Watchful waiting is much more common now than surgical interference as it is found that many tumours are very slow to enlarge or produce metastases.
- Drugs can be used to reduce levels of male sex hormones. Surgery can be used to remove aggressive tumours. Radiotherapy treatment either externally or by insertion of radioactive needles.
- (c) Critical illness would be accepted with a cancer exclusion. The investigations into this applicant indicate a good prognosis over the next 10 years and a small extra would be sufficient for life and income protection.

**Model answer for Question 6**

- (a) Exclusions are of limited use in a life policy as they make the policy incomplete and therefore unsuitable, for example, for assignment to a bank for protection of a loan. However, an exclusion may be applied if some feature of the application is uninsurable or only with a heavy extra premium enabling the applicant to have a life policy at reasonable cost. An exclusion may also be applied to a dangerous activity.
- (b) Exclusions are commonly applied to specific disorders usually covered by critical illness policies if the applicant already has the condition or a pre-disposition. Sometimes if the exclusion is very broad, for example cancer, then the premiums may also be reduced.
- (c) Exclusions are frequently applied for chronic conditions in an otherwise standard risk, for example, back ache with no specific cause. Sports and hobbies may also be excluded. If the exclusions are far reaching, there may be some reduction in the premium.

**Model answer for Question 7**

- (a) The major role of prolactin is to induce milk production in a female.
- (b) *Any three of the following:*
- An adenoma of the anterior pituitary gland.
  - The use of drugs, particularly those used in psychiatry.
  - Metabolic disturbances such as renal failure and hypothyroidism.
  - In pregnancy and lactation.
- (c) Underwriting this applicant for life, critical illness (CI) and income protection (IP) insurance depends entirely on the cause. In the case of a pituitary adenoma, if it is small then it may be possible to control the situation using drugs and the risk to life and IP is very small. Larger aggressive tumours may require surgery and a postponement would be wise until after this is done. An exclusion could be applied for CI. If there are other causes, the outlook would depend on the prognosis. For example, hypothyroidism can be corrected.

**Model answer for Question 8**

- (a) *Any three of the following:*
- A cough with production of sputum for three months of the year.
  - Breathless on exertion.
  - Wheezing from bronchospasm.
  - A lung function showing mild abnormalities of peak flow and forced expiratory volume in one second (FEV1).
- (b) *Any three of the following:*
- Cough with purulent sputum all the year round.
  - Breathless at rest.
  - Grossly abnormal lung function.
  - Abnormal blood gases.
  - Cyanosis.
  - Right-sided heart failure (cor pulmonale).
  - Advanced chronic obstructive pulmonary disease (COPD) may need hospital admissions.
- (c)
- Underwriting for life and income protection insurance will depend on the level of disability at the time, in the knowledge that there will be gradual deterioration.
  - Smoking will increase the risk more than it would for an applicant without COPD.
  - Pulmonary function tests will enable a more accurate assessment and should be asked for.
  - For life, substantial ratings should be imposed for applicants who are breathless on normal everyday activities and who have moderately impaired lung function.
  - Applicants who have a grossly impaired lung function, disturbed blood gas analysis, multiple admissions to hospital, or heart failure should be declined.
  - For income protection, the knowledge that the condition will deteriorate will make the underwriter cautious and only mild cases are acceptable.

**Model answer for Question 9**

- You would look for good general health with no evidence of present or past opportunistic infections.
- You would look for evidence of good cooperation with follow-up and treatment.
- You would look for an acceptable CD4 count of more than 200.
- You would look for low viral loads i.e. human immunodeficiency virus (HIV), ribonucleic acid (RNA).

**Model answer for Question 10**

- (a) The red blood cells in iron deficiency anaemia are pale and small (hypochromic microcytic).
- (b)
- Iron deficiency may occur due to inadequate iron in the diet.
  - Loss of iron from chronic haemorrhage, for example, heavy menstrual flow.
  - A failure to absorb iron through disease of the intestine.

**Model answer for Question 11**

- The presence of HBsAg and HbeAg is an indicator that the virus antigen is present, and the disease is active.
- The presence of Hbvirus DNA greater than 20,000 indicates an active disease.
- The presence of HBsAb and HBcAb with normal liver function tests are good signs and indicate that the applicant has mounted an immunological defence against the virus.

**Model answer for Question 12**

- (a) *Any six of the following:*
- At least one year since the transplant.
  - Mild episodes of rejection or none at all.
  - Small doses of immunosuppressant drugs.
  - Minimal proteinuria.
  - A normal or only slightly impaired stable renal function.
  - A controlled blood pressure.
  - No more than slight hyperlipidaemia.
  - No underlying condition which might involve the new kidney.
- (b)
- Albumin to creatinine ratio (ACR) also known as urine microalbumin – a urine test to establish the albumin to creatinine ratio. This can indicate kidney disease, particularly in diabetics.
  - Estimated glomerular filtration rate (eGFR) – a blood test used to measure how well the kidneys filter creatinine into the blood.

**Model answer for Question 13**

- The Access to Medical Reports Act 1988 (AMRA) applies to any report by any doctor who has ever had professional contact with an applicant.
- The AMRA sets the rules within which an underwriter may obtain a general practitioner's or other medical reports about an applicant.
- The underwriter cannot request a report without the applicant's express consent.
- The applicant has the right to view the report written by their general practitioner before it is sent to the insurer. If so, the applicant has 21 days to view it and this can delay the underwriting process.
- The applicant can refuse to allow the report, once written, to be released. The general practitioner may refuse access to medical records which they consider may harm their patient. Either of these possibilities may affect whether the underwriter can make a decision on offering terms.

**Model answer for Question 14**

Applicants over the age of 60 are dealt with too harshly by the numerical rating system as the normal mortality statistics in older people already accounts for disease in them. It is usual instead to add years to the applicant's age and rate them as though they were normal at that age.

The numerical rating system applies a level extra for the whole of the term when in some cases the risk is highest in the early years and then tapers off with time. It is usual instead to add a cash extra premium in the early years to reflect this pattern of risk more accurately.

**Model answer for Question 15**

- (a)
- A general practitioner's report will be required, with a diabetic questionnaire, any available hospital reports and possibly an independent medical examination.
  - Data on hospital admissions.
  - Were they for hypo glycaemic episodes and/or ketoacidosis and when was the last episode?
  - A series of measurements of haemoglobin A1c (HbA1c) to monitor diabetic control.
  - Confirm weight and blood pressure.
  - Blood lipid levels.

Any evidence of diabetic complications:

- Are the fundi normal with no evidence of retinopathy?
- Is there proteinuria or evidence of diabetic nephropathy?
- Has microproteinuria been looked for?
- Measurements of creatinine or estimated glomerular filtration rate.
- Is there evidence of neuropathy?
- Is the circulation in the feet normal?

- (b) An angiotensin converting enzyme inhibitor is usually used to control blood pressure but sometimes it is used to protect the kidney from diabetic disease.

- (c) The basis of rating diabetes is the age of the subject and the duration of diabetes. This applicant, at age 40, with a diabetic history of 25 years, would already attract a medium to high rating for life.

In addition, extra ratings would be applied for:

- Evidence of poor control measured by HbA1c readings and a history of episodes of hypoglycaemia, ketoacidosis and multiple changes of treatment.
- Obesity.
- Hypertension.
- Hyperlipidaemia.
- The presence of diabetic complications particularly of the kidney.

Depending on whether these features are present, this woman might demand a high rating for life cover and decline critical illness. She does, however, want a term of only 15 years which would substantially reduce a rating.

**Model answer for Question 16**

(a) (i) Extra data could be gathered by issuing specialist questionnaires for his back problem and for depression. A tele interview might reveal more information on his alcohol consumption. A general practitioner's report might reveal comments on his general state of health and any treatment he is having. If there is any suggestion of heavy drinking a medical examination with samples taken for liver function tests would be required.

(ii) Back problem

- Whether surgical treatment was necessary.
- Whether he has back symptoms at present.
- Whether he has any treatment currently.

Depression

- Have there been any suicidal thoughts or attempts?
- How much has depression interfered with his work?
- Is he on treatment?
- Does he have a supportive family?

Alcohol

- He drinks 20 units of alcohol a week which is very low for a bar owner.
- Has he been warned off alcohol because of other treatment?
- A medical examination might reveal liver enlargement, alcohol on his breath and may also show the mobility of his back.

(b) Back problem

There is a physical component to his job. Any back symptoms could affect his daily work.

Depression

Depression could easily affect his daily work if he has a recurrence.

Alcohol

Alcohol is an occupational hazard for bar owners, which is particularly important for this applicant because he may use it to combat his depression.

(c) Back problem

A back problem is not a life risk, but it is crucial for total and permanent disability (TPD) and should be excluded.

Depression

Depression could be a substantial life risk, particularly if there have been any suicidal thoughts or attempts. Any time off work is a bad sign. As is a long fluctuating history and poor family support.



Alcohol

Alcohol, if combined with antidepressant drugs, is a danger even if consumption is within the normal range.

Occupation

TPD would not be allowed on own occupation because of his occupation. Exclusions may apply even under work task definitions.

**Model answer for Question 17**

- (a) (i)
- The multiple of annual income at age 45 would be x 15.
  - Income from investments and rent is excluded.
  - Regular payments such as existing insurance policies are deducted.
  - Bonus payments are only included if they are regular.
- (ii)
- Payments are around 60% of gross salary at the time of the claim.
  - Care should be taken to make sure there is not any over insurance.
  - The insurer might have an upper limit for income protection.
- (b)
- For both policies it would be necessary to obtain a financial questionnaire to include information about his income and bonuses over the last three years.
  - The stability of the business and earnings would be checked by requesting the accounts over the last three years.
  - For income protection, the moral hazard and difficulty in managing claims is considerable.
- (c) Features of ankylosing spondylitis which could impact on life or income protection insurance:
- Inflammation begins in the sacro-iliac joints and spreads upwards throughout the spine, resulting in a loss of movement. Major joints may be difficult to control.
  - Eye problems (iritis) may interfere with vision when looking at computer screens and driving etc.
  - In some cases, heart abnormalities occur in particular aortic incompetence and bundle branch block.
  - Proteinuria may indicate renal involvement as the result of secondary amyloidosis.
  - Due to lung fibrosis, chest X-rays may show apical fibrosis while pulmonary function testing may reveal a restrictive lung defect.