Examiners' Report Paper A 2011 (Electricity/Mechanics)

1. General Considerations

In the following, the abbreviation GL refers to the Guidelines for Examination in the European Patent Office in the version dated April 2010.

1.1 Introduction

This year's paper relates to a boiler for a moka coffee machine. In his letter (par. 2-7), the client describes a conventional moka coffee machine. The moka coffee machine (fig. 1a) comprises a boiler 1, a ground coffee holder 2 and an upper part 3. According to the client all three of these parts can be purchased separately as spare parts. Fig. 1b shows the conventional coffee machine after it has been filled with water and ground coffee, and the upper part 3 has been screwed onto the boiler 1 by means of the threads 18 and 19.

In his letter (par. 8), the client mentions that a problem with this conventional prior art moka coffee machine is that the water is too hot when it passes through the ground coffee. The client mentions (par. 8) that, as is explained in D1 and D2, the temperature of the water passing through the ground coffee should be between 75°C and 90°C.

1.2 Prior Art Documents D1 and D2

In his letter (par. 8 and 10), the client refers to a first prior art document D1, which discloses a moka coffee machine comprising an electronic control unit 133 which activates a pump 132 when the temperature of the water in the reservoir 114 has reached 90°C. The pump then pumps water from a first pouch 141 into a second pouch 142, whereby water is forced out of the reservoir 114.

In his letter (par. 8 and 10) the client further refers to a second prior art document D2 which discloses a moka coffee machine comprising a boiler 201 connected to a compressed air source 251. The boiler 201 comprises a temperature indicator 253, which provides a visible indication when the water in the reservoir 214 has reached 78°C. In response to this visible indication, the user must manually open a valve 252 in order to allow compressed air to enter the reservoir 214, whereby water is forced out of the reservoir 214.

In his letter (par. 10), the client states that coffee machines according to the invention prepare coffee at between 75°C and 90°C, and that they are simpler than the moka coffee machines disclosed in D1 and D2.

1.3 Challenges of the Paper

The client describes five examples of the invention.

In a first example (Figs. 2a and 2b), a circular elastic membrane and a flange separate the boiler into a chamber and a reservoir, the reservoir containing water and the chamber

containing a liquid. The liquid has a boiling point of less than 100°C at average sea level pressure. When the liquid in the chamber boils, the pressure in the chamber increases so the membrane is displaced and water is forced out of the reservoir. The water passes through ground coffee to form prepared coffee.

In a second example (Fig. 3), instead of the circular elastic membrane of the first example a displaceable element comprising a ring shaped elastic membrane and a circular metal heat-exchanging structure with fins is provided. The heat exchanging structure exchanges heat between the chamber and the reservoir.

In a third example (Fig. 4), an elastic membrane is arranged differently from the elastic membrane of the first example. The elastic membrane is arranged diagonally inside the boiler so that the liquid in the chamber can be directly heated by the base plate.

In a fourth example (Fig. 5), the boiler comprises a sealed pouch formed by an elastic membrane which surrounds a chamber. The pouch is retained in the boiler by a grid.

In a fifth example (Fig. 6), the chamber and the reservoir are separated by a piston which is displaceable in a cylinder.

In all five examples of the invention, the inside of the boiler is divided by a displaceable element into a reservoir for holding water and a chamber holding a liquid, whereby the following is true for all five examples:

i) the liquid has a boiling point lower than 100°C at average sea level pressure, and
ii) the displaceable element is displaceable so that the volume of the chamber increases and the volume of the reservoir decreases for forcing water out of the reservoir through the opening.

This allows water to be forced out of the reservoir at a temperature below 100°C at average sea level pressure.

The client wishes to protect all the examples of his boiler for a moka coffee machine in a European Patent application.

1.4 The Marking Scheme

Answer papers were marked on a scale of 0 to 100 marks:
up to **50 marks** could be achieved for an independent claim,
up to **35 marks** could be achieved for a set of dependent claims, and
up to **15 marks** could be achieved for the description.

2. Independent Claim (50 marks available)

Generally it is noted that the marks awarded for an independent claim reflect the degree to which the claim achieves protection for the client's invention in its broadest possible scope.

This year, the only independent claim expected was a single device category claim to a boiler for a moka coffee machine.

Where an answer paper has an additional independent claim in a different category, e.g. a method of making a boiler for a moka coffee machine or a method of using such a machine, 50 marks were available for the independent device claim and no additional marks were available for the additional independent method/use claim.

Answer papers having multiple independent claims in the device category which attempt to cover different examples of the invention (e.g. the various examples shown in Figs. 2-6) could achieve up to 35 marks for the independent claims in total, because it is considered that the invention can be appropriately claimed with a single independent claim.

When an answer paper has an independent claim to a coffee machine and an independent claim to a boiler for a coffee machine, both claims were evaluated and only the independent claim achieving the highest number of marks was taken into account for marking.

Other cases were considered on a case-by-case basis.

This year, separate applications were not expected and no marks were foreseen for them.

2.1 The following example solution is a list of features suitable for formulating an inde claim for protecting the client's invention:

a) A boiler for a moka coffee machine comprising:
b) a reservoir for holding water,
c) a chamber holding liquid, and
d) a displaceable element separating the reservoir from the chamber,
e) the reservoir having an opening,
f1) the element being displaceable so that the volume of the chamber increases and the volume of the reservoir decreases
f2) for forcing water out of the reservoir through the opening,
g) the liquid having a boiling point lower than 100°C at average sea level pressure.

2.2 Equivalent/non-equivalent wording of features of example independent claim:

In the following notes, remarks are made to features of the example solution. Where an "equivalent" is given, it is intended to indicate a different wording for a given feature that can achieve the same number of marks as the wording given in the example solution. It is not intended to indicate that the wording itself necessarily has exactly the same meaning as the wording of the example solution. Where a "non-equivalent" is given, it is intended to indicate a different wording for a given feature that cannot achieve the same number of marks as the wording given in the example solution.

Remarks to feature a:
As the boiler can be purchased separately as a spare part (see par. 2 of clients letter), a claim to a boiler is expected, and not a claim to a coffee machine.

Equivalents: Water heater for a moka coffee machine; boiler (without "for a moka coffee machine"); device; device for a coffee machine; boiler adapted to receive a ground coffee holder and/or an upper part.

Non equivalents: Coffee machine or moka coffee machine (see section unnecessary limitation, -30 marks); device for making coffee (see section lack of clarity, -10 marks)

Remarks to feature b:
none

Equivalents: Instead of a "reservoir", a different wording such as a "volume" or "chamber" may be used.

Non equivalents: Reservoir holding water, this defines the reservoir only when it contains water (see section unnecessary limitations, - 20 marks)

Remarks to feature c:
The liquid is considered to be an essential feature for solving the problem. A novel claim which does not include the liquid within its scope is missing an essential feature, (see under lack of clarity, -15 marks). A claim not including the liquid furthermore risks lacking novelty with respect to D1. In such a case marks were deducted due to lack of novelty but not because the claim is missing an essential feature (see non equivalents below).

Equivalents: Instead of claiming a liquid, claiming a fluid.

Non equivalents: A chamber for holding a liquid with or without specifying the boiling point of the liquid (see under novelty or clarity).

Remarks to feature d:
This feature can be expressed without a reference to a displaceable element. For example, a claim having features a, b, c, e and g and where features d, f1 and f2 are replaced by: “the volume of the chamber being increasable to force water out of the reservoir through the opening” achieves full marks.
When the chamber is defined as being **within** the reservoir this has consequences for the remaining features of the claim, since the volume of the reservoir does not change (see lack of clarity, -5 marks).

Equivalents: The definitions “displaceable wall”, “movable element” and "separating element" are considered to be equivalent to a "displaceable element".

Non equivalents: Piston, membrane, elastic element (see under unnecessary limitations).

Remarks to feature e:
The presence of an opening can be implicit.

Equivalents: The feature of an opening can be claimed implicitly, for example by defining that water can be forced out of the reservoir (or boiler). Where the opening is defined, a claim defining the opening as being arranged for receiving a ground coffee holder is considered equivalent to the opening defined in feature e.

Non equivalents: An opening having a ground coffee holder inserted therein (see unnecessary limitation, -25 marks)

Remarks to feature f1:
none

Equivalents: Full marks could be awarded for defining the element as being displaceable so that the volume of the chamber increases without qualifying that the volume of the reservoir decreases, provided feature f2 is present.

Remarks to feature f2:
Where features f2 and e are missing the claim lacks novelty over D2 (see under lack of novelty). Where only feature f2 is missing (see under lack of clarity), the claim lacks an essential feature -15 marks).

Equivalents: such that the volume of the chamber is increased and water is forced out of the reservoir through the opening

Remarks to feature g:
none

Equivalents: Liquid having a boiling point lower than that of water.

Non equivalents: Liquid having a boiling point lower than 100°C, without specifying a pressure condition (see lack of clarity, -5 marks); liquid having a boiling point of between 75° and 90°C at average sea level pressure (see unnecessary limitations, -20 marks); a liquid further qualified to be liquid at room temperature (-5 marks, see unnecessary limitations).

2.3 Unnecessary Limitations (up to -50 marks)

Unnecessary limitations in independent claims are considered to be features that: a) are unnecessary for defining the client's invention in its broadest possible scope; and b) disadvantage the client by limiting the scope of the claim.
An unnecessary limitation may for example result in the exclusion of protection for one of the examples of the invention discussed in the client's letter.

If a feature of a claim is unclear so that it is ambiguous as to whether or not the claim is unnecessarily limited by that feature, then this is considered under the section lack of clarity and not in this section.

2.3.1 Generally, where a claim is unnecessarily limited to the extent that one of the examples specifically illustrated in Figs. 2-6 of the client's letter is not protected, then 20 marks were deducted. For each additional example of Figs. 2-6 that is excluded, another 10 marks were deducted.

<u>Examples:</u>

- Displaceable element comprises an elastic membrane or elastic element (-20 marks, for excluding the example of Fig. 6).

- Displaceable element comprising a piston or boiler comprising a cylinder (-50 marks, for excluding the examples of Fig. 2 - 5).

- Displaceable element defined as comprising a metal heat exchanging structure or fins (-40 marks, for excluding the examples of Figs. 2, 4 and 5).

- Protrusions on the inner wall of the boiler (- 50 marks, for excluding the examples of 3, 4 and 6).

2.3.2 Independent claims having all the features of the example solution claim and having at least one additional feature in accordance with the following list were considered to be unnecessarily limited. Marks were deducted for claims including these features according to the following scheme:

Examples:

- A claim to a moka coffee machine (-30 marks).

- Assembly comprising a boiler and any other additional parts of a coffee machine, for example a ground coffee holder (-25 marks)

- Ethanol or boilanol (- 30 marks)

- Boiling point of the liquid between 75° and 90°C at average sea level pressure (- 20 marks)

- Boiling point of the liquid lower than 90°C (- 20 marks)

- The reservoir defined as holding water (- 20 marks)

- Boiler comprising features a to g and additionally claiming an (outer) thread (- 20 marks).

2.3.3 Other features present in all examples of the client's invention but considered to be unnecessary for defining the invention lead to a deduction of fewer marks:

- Safety valve (- 5 marks).

- Metal sidewall of boiler and/or metal base plate (- 5 marks).

- Boiler comprising features a to g and additionally claiming holding means (or retaining means) for holding the chamber in the boiler (- 5 marks).

- A liquid further qualified to be in a liquid state at room temperature (- 5 marks).

2.3.4 An independent claim having all the features of the example solution claim and having at least one additional feature in accordance with the following list is not considered to be unnecessarily limited, provided no particular material, such as metal, is specified for the feature. No marks were deducted for including these features:

- sidewall of boiler(- 0 marks)
- base plate of boiler (- 0 marks)
- defining that the displaceable element comprises a heat exchanging structure, since the displaceable element always has a certain structure and will to a greater or lesser extent be able to exchange heat (- 0 marks)
- defining a displaceable element and a heat exchanging structure (- 0 marks)

- boiler for a moka coffee machine comprising a housing (- 0 marks)

2.4 Lack of Novelty (- 30 marks)

An independent claim considered to lack novelty against any of the available prior art lost 30 marks.

2.4.1 The following is noted regarding the document D1:

The coffee machine of D1 is considered to comprise a chamber which is enclosed within the walls of the boiler, namely in the form of the second pouch 142.

The pouches 141 and 142 disclosed in D1 are considered to be (suitable) for containing a liquid, including a liquid having a boiling point below that of water.

Considering D1, it is further noted that feature g of the example independent claim provides novelty with regard to D1. In D1 the liquid used for forcing water out of the reservoir is water whose boiling point is 100°C at average sea level pressure.

The following claim is considered to lack novelty with respect to D1 (-30 marks):

A claim having features a, b and d-g, and whereby feature c has been replaced by "a chamber **for** holding a liquid" with or without specifying the boiling point of the liquid. Such a claim lacks novelty over D1, because the pouch 142 in D1 is also **suitable for** holding a liquid having a boiling point lower than 100°C at average sea level pressure.

2.4.2 The following is noted regarding the document D2:

D2 discloses a coffee machine which has two “reservoirs” for holding water, the first being the large reservoir 214 and the second being the second chamber 255 of the temperature indicator 253.

Considering D2, feature f2 of the example independent claim provides novelty with regard to D2. In D2, the water displaced by the ethanol gas remains inside the temperature indicator 253 which does not have an opening through which the water can be forced out.

The temperature indicator 253 is not considered to comprise a “reservoir comprising an opening".

While the water in the second chamber 255 of the temperature indicator is per se considered to be suitable for making coffee, the temperature indicator 253 holds the water in a way which excludes the water in the second chamber 255 of the indicator being used for making coffee. The chamber 255 is not arranged such that coffee can be made from the water contained in the chamber.

The following claim is considered to lack novelty with respect to D2 (-30 marks):

A claim having features a-d, f1 and g, but missing features e and f2.

2.4.3 If, due to an unclear formulation, it is unclear as to whether or not the wording of the claim can be read onto a piece of the prior art, then marks were deducted under lack of clarity, not under lack of novelty.

2.5 Lack of Inventive Step (-25 marks)

An answer paper having a single independent claim, whose subject matter is considered to lack an inventive step in the light of the available prior art lost 25 marks.

2.6 Lack of Clarity (up to -30 marks)

Up to 30 marks in total could be deducted in this section. The full deduction of 30 marks was applicable where the sum of all clarity issue deductions added up to 30 marks or more.

Examples:

- A claim being rendered novel merely by claiming a desired effect is considered to be very unclear, see GL C-III 4.10 (-25 marks).

- A claim to "a device for making coffee" is considered in this section because it is not clear whether the entire coffee machine or only the boiler is claimed (-10 marks).

- For the example claim, the functional definition given in f2 (or an equivalent feature) is considered essential for clearly defining the relationship between the "reservoir", the "displaceable element" and the "chamber" in conjunction with the feature f1. Thus, such a claim not including feature f2 lacks an essential feature (-15 marks).

- A chamber for holding a liquid with or without specifying the boiling point of the liquid, the claim being otherwise novel, is considered in this section because it lacks a feature essential for carrying out the invention (-15 marks).

- When an answer paper defines the chamber as being **within** the reservoir, then depending on the specific language a lack of clarity may arise if the further features of the claim contradict this definition. E.g. if it is further defined that "the volume of the chamber increases and the volume of the reservoir decreases" (- 5 marks), or if it is further defined that "a displaceable element is arranged in the reservoir and adapted to separate a chamber from the reservoir" (- 5 marks).

- Defining in feature g a boiling point of the liquid to be lower than 100 °C without defining a pressure condition (-5 marks).

- Referring to the temperature at which water is forced out of the reservoir does not clearly define the boiler since this temperature depends on other factors such as how the boiler is heated (-5 marks).

2.7 Formal Matters (up to -5 marks)

2.7.1 For the example solution it is considered appropriate to use a two part form claim. Answer papers having the example solution independent claim but not using the two part form lost 3 marks. Other solutions were considered on a case-by-case basis.

An incorrect two-part form with respect to any of the items of prior art mentioned in the client's letter lead to a deduction of 3 marks.

In the case of the example solution, no marks were deducted for a characterising portion starting either with feature g (considering prior art D1), or with feature f1 (considering prior art D2).

2.7.2 The total absence of reference signs in the claims resulted in a deduction of 2 marks.

Partially incorrect or very incomplete reference signs in the claims resulted in a deduction of 1 mark.

2.8 Inferior Solutions (up 30 marks available)

An independent claim which is considered in this section is a claim which:
- offers a less favourable scope of protection for the client than the example solution claim, for example because it is contrary to the client's wishes;
- misses at least one feature of the example independent claim;
- has at least one feature that is not in the example independent claim; and
- is new and arguably not obvious with respect to the available prior art.

3. Dependent Claims (35 marks available)

Generally it is noted that the marks awarded for a dependent claim reflect the degree to wh the claim offers a fall-back position for the client, taking into consideration the independent claim or claims and the prior art available. No marks were awarded for any claims subsequent to a 15th claim, since the client states that claim fees will not be paid.

3.1 Structure

3.1.1 Important requirements for receiving full marks are
- **clarity**, e.g. consistency of terminology with the independent claim,
- claim **structure** : a set of dependent claims having a structure which give the client an appropriate set of fall-back options whilst at the same time being concise and having claims with correct back references is considered to have a good structure.

3.1.2 Where a feature A is unnecessarily limited in a set of dependent claims, by grouping it together with a feature B, the full potential of a fall-back position for features A and B is not achieved. The number of marks available for a claim combining features A and B corresponds to the number of marks achieved either by a claim to feature A or a claim to feature B, whichever is lower.

Example:

Dependent claims 2 and 3 depending on the example solution independent claim, and having the wording:
2) "A boiler according to claim 1, wherein the displaceable element is an elastic membrane. (2 marks).
3) "A boiler according to claim 1 or 2, wherein the boiler comprises a grid. (3 marks).

In this case the total obtained for the two features in claims 2 and 3 is 5 marks.
However, the above features claimed together in a single claim provide the client with a more limited fall-back position:

"2. A boiler according to claim 1, wherein the displaceable element is an elastic membrane and the boiler comprises a grid: (2 marks)

When a dependent claim unnecessarily combines more than two features, the same principle applies.

3.1.3 A claim to a moka coffee machine comprising a boiler according to any previous claim and being further limited by including additional structural features of the coffee machine was not awarded full marks.

Example:

Coffee machine comprising a boiler according to any previous claim and further comprising a receptacle for receiving prepared coffee (2 marks out of 4 marks for "Coffee machine

comprising a boiler according to any previous claim")

3.1.4 Where an answer papers has an independent claim which differs from that of the example solution, the dependent claims may differ from the example dependent claims. This was considered on a case-by-case basis, considering the value of the dependent claims in the light of the independent claim.

3.2 Example feature set for dependent claims

In this section, an example feature set is defined which could be used to formulate good dependent claims for an independent claim corresponding to that of the example solution discussed above. In the example feature set, groups of features for dependent claims are defined, each relating to a specific aspect of the invention. The marks available for each of these groups is indicated. It is however noted that there are different ways of grouping features in dependent claims whilst still achieving the full number of available marks.

Liquid **(up to 4 marks)**:

... the liquid is ethanol: **up to 2 marks**
... the liquid is boilanol: **up to 2 marks**

Displaceable element **(up to 21 marks)**:

... the displaceable element comprises an elastic membrane: **up to 2 marks**
.... the boiler has a sidewall and the displaceable element is attached to the sidewall: **up to 2 marks**
..... the boiler has a flange on sidewall and the displaceable element is attached to the flange: **up to 2 marks**
..... the flange comprises heat-exchanging fins: **up to 2 marks**
..... the displaceable element is also attached to base plate: **up to 3 marks**
.... the displaceable element is a pouch: **up to 4 marks**
... the boiler comprises a cylinder and the displaceable element comprises a piston, the reservoir being within the cylinder and the piston being arranged to be displaced in the cylinder): **up to 4 marks**
... the displaceable element comprises a metal heat-exchanging structure having fins: **up to 2 marks**

Further features of the boiler (**up to 6 marks**):
... the boiler comprises a grid for limiting the movement of the displaceable element: **up to 3 marks**
... fins on the cylinder: **up to 2 marks**
... the side wall of boiler has protrusions on its inner side: **up to 1 mark**

Moka coffee machine (**up to 4 marks**):
... moka coffee machine comprising a boiler **according to any of preceding claims**

3.3 Other dependent claims

3.3.1 Claims considered to offer a useful fall-back position (up to 5 marks)

Up to 5 marks in total were available for one or more additional dependent claims offering a useful fall-back position or positions, provided the total of **35** marks for the dependent claims was not exceeded. The dependent claims appropriate for achieving fall-back positions may depend on the independent claim. For example, if an answer paper has an independent claim to a boiler which is **not new** with respect to D1 because feature g is missing, a dependent claim to this feature is an important fall-back position for the client (**5** marks).

3.3.2 Claims considered not to offer a useful fall-back position

Dependent claims which were considered not to offer a useful fall-back position for the client were not awarded marks.

Examples: where claim 1 is according to the example claim set:

- A boiler according to claim 1 further comprising a safety valve (0 marks).
- A boiler according to claim 1 comprising side walls (0 marks).

Claims dependent on a claim to a coffee machine comprising a boiler according to claim 1 having the features:

- the coffee machine having an upper part comprising a receptacle for receiving prepared coffee (0 marks),
- the coffee machine having an upper part comprising a conduit for conveying prepared coffee directly into a cup (0 marks)

4. Description (15 marks available)

4.1 For an acknowledgement of prior art, 5 marks were available. Full marks in this section were available for citing a single piece of prior art and explaining it. When the independent claim is constructed in the two part form, full marks were available for a brief explanation of the cited prior art. When the independent claim is constructed in the one part form, full marks were only awarded for a citation of a piece of prior art and explanations from which it was derivable which of the features claimed in the independent claim are known from the cited prior art (see GL C-III, 2.3.2).

4.1.1 For the example solution independent claim, D1 is considered more relevant than D2 and the conventional machine shown in Figs. 1a and 1b of the client's letter. In the conventional machine, the water passing through the ground coffee has a temperature of about 100 °C at average sea level pressure. Both D1 and D2 disclose machines in which the water passing through the ground coffee has a temperature below 100°C at average sea level pressure. In D1, like the boiler of the example solution independent claim, the water for passing through the ground coffee is forced out of the boiler by a displaceable element displaced by a fluid. In D2, there is no displaceable element for decreasing the volume of the reservoir. The water passing through the ground coffee is forced out of the boiler by compressed air. Furthermore, the machine of D1 automatically prepares coffee having a temperature lower than 100°C at average sea level pressure, whereas the machine of D2 only automatically indicates when coffee of this temperature can be prepared. To prepare the coffee a valve must be manually opened.

4.1.2 For the example solution an identification and explanation of the content of D1 was expected and received up to 5 marks.

4.1.3 For the example solution independent claim, a mere citation of D1 without describing the technical content thereof received 2 marks.

4.1.4 For the example solution independent claim, a citation of D2 and explanation of its content received up to 3 marks.

4.1.5 For the example solution independent claim, a mere citation of D2 without describing the technical content thereof received 1 mark.

4.1.6 Referring only to the prior art of the conventional machine shown in Figs. 1a and 1b of the client's letter received no marks.

4.2 A total of 6 marks were available for a discussion of a problem. To receive all the marks available, the problem had to be consistent with the prior art acknowledged and with the independent claim of the answer paper.

4.2.1 For the example solution independent claim, the discussion can be as follows: D1 discloses a boiler for a moka coffee machine with a temperature sensor, a control unit, a pump and a battery for powering the control unit and the pump. Such a device is complicated since it requires electrical components and a battery for powering the electrical components. The battery would need to be regularly replaced.

4.3 A total of 4 marks was available for a discussion of a solution to the problem provi the invention. To receive all the marks available, the solution had to be consistent with th independent claim of the answer paper.

Other arguments pertaining to problems of the prior art not solved by the independent claim of an answer paper were not awarded marks. E.g. for the example solution independent claim the fact that the first pouch 144 of the boiler of D1 is outside the side walls of the boiler may be inconvenient for the user of the coffee machine. However this problem is not solved by the claim. Stating this as the only problem to be solved would therefore not have attract any marks.

4.3.1 For the example solution independent claim, a solution to the above problem could be discussed as follows: in the invention as claimed, the liquid used for displacing the displaceable element has a boiling point below 100°C at average sea level pressure. This means that when the liquid reaches its boiling point, the displaceable element is displaced and water for passing through the ground coffee is forced out of the opening of the reservoir. This enables the user to prepare coffee having a temperature below 100°C at average sea level pressure without the need for a temperature sensor, a control unit, a pump and a battery, thereby overcoming the problems associated with these elements.

EXAMINATION COMMITTEE I

Candidate No.

Paper A (Electricity/Mechanics) 2011 - Marking Sheet

Category	Maximum possible	Marks awarded	
		Marker	Marker
Independent claim	50		
Dependent claims	35		
Description	15		
Total	**100**		

Examination Committee I agrees on ..... marks and recommends the following grade to the Examination Board:

☐ PASS (50-100)

☐ COMPENSABLE FAIL (45-49)

☐ FAIL (0-44)

30 June 2011

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Chairman of Examination Committee I