INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

September 2010 examinations

Subject ST2 — Life Insurance
Specialist Technical

Introduction

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The questions and comments are based around Core Reading as the interpretation of the syllabus to which the examiners are working. They have however given credit for any alternative approach or interpretation which they consider to be reasonable.

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Chairman of the Board of Examiners

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1 (i) **Basic Equity Principle**

For unit holders the only prices relevant are those at which they buy units in the fund and those at which they redeem their units.

In theory, the movement in price between those two events should only reflect the performance of the assets backing the unit and charges deductible under the policy provisions.

Price should not be affected by creation or cancellation of other units, otherwise cross subsidies between unit holders will arise.

The basic equity principle of unit pricing for an internal fund is therefore that the interests of unit holders not involved in a unit transaction should be unaffected by that transaction.

(ii) The basic equity principle is only achievable if the amount of money put into the fund, or taken out of the fund, is such that the net asset value per unit is the same before or after appropriation.

Appropriation price is this amount of money when creating a unit. It preserves the interests of existing policyholders.

Expropriation price is this amount of money when cancelling a unit. It preserves the interests of continuing policyholders.

(iii) (a) **Appropriation Price**

MV of assets (excluding cash)	£50,000.00
Cash Balance	£750.00
	£50,750.00

Total fund value = Market value of assets + purchasing costs of assets
= 50,750 + 1,152 = £51,902
Number of units = 10,000
Appropriation Price = £5.1902 per unit

(b) **Expropriation Price**

Deduct sales costs from appropriation price total fund value

Fund value = 50,750 – 1,376 = £49,374
Expropriation Price = £4.9374 per unit

(c) **Offer price**

Assumes continuing on an offer basis
Offer price = appropriation price plus initial charge
Initial charge of 3%
Offer Price = £5.1902 / 0.97 = £5.350722
Rounded to 3dps = £5.351

(d) **Bid Price**

On offer basis, bid price = appropriation price
Rounded to 3dp
Bid Price = £5.190

(e) **Units purchased by £1,500**

Offer price used for purchases
1,500 / 5.351 = 280.321 units

Part (i) candidates were able to state the basic equity principle but given the number of marks available few expanded upon this. In part (ii), a common mistake was to provide a description of the appropriation and expropriation prices and how they are calculated rather than answering the question and relating that back to the basic equity principle. Part (iii) was well answered although some candidates were confused as to how the selling and purchasing costs affect the appropriation and expropriation prices.

2 The proposal impacts existing business only, so the motivation needs to be understood. It may have been proposed in order to reduce lapses, either to the new product or to competitors.

Under the original policy, the only mortality risk to the company was that initial expenses may not have been recouped on early death.

The product design would not have encouraged any anti-selection with regard to mortality.

As a result, it is highly unlikely that any underwriting would have been carried out at the point of sale.

For the new product, the additional life cover is an integral part of the product, which is largely used as a savings vehicle, and so there is likely to be little anti-selection from new policyholders.

For the policyholders with the old version, it is likely to be the less healthy that take up the offer. Alternatively the demographics of the policyholders with the old version of the product may be different to the new version.

If the company intends to charge a different (i.e. higher) base level of mortality deductions than those under the new version, to allow for any anti-selection risk or

differences in demographics, then it needs to consider any potential adverse impact arising from this, such as reputational damage.

Underwriting should also be carried out where the potential sum at risk is high.

In assessing this, the company should consider potential falls in unit values.

The company needs to consider how the cost of underwriting would be recouped.

The company should accept that there are likely to be a higher level of rated and rejected cases.

This may cause brand damage having written and offered the option to those policyholders.

The mortality deductions from the fund will lead to lower maturity values compared to before. Or the premiums could be increased to target a similar maturity value.

In the latter case, it would alter the minimum sum assured.

Clear communications (including projections) to policyholders will be required to inform policyholders of the changes in potential maturity value or the level of premium.

The company would need to consider whether the reduction in fund will lead to reduced charges for the company (e.g. reduced annual management charges.), which could lead to reduced profit or non-recovery of expenses or whether the mortality charges include a profit loading that would mitigate this.

If the company does not offer the option then there is a lapse and re-entry risk.

The most benefit from the option would be early in the policy term when the fund value is low.

However, surrendering at this time would possibly incur surrender penalties.

Ease of administering the proposal is important. For example, if the two products are administered on the same system it may be relatively simple.

If the development cost was significant, it is unlikely to be in the company's interest to make this offer. Also if the take up rate for the option due to lack of perceived benefit to the policyholder is expected to be low, resulting in low volumes, then the development costs my not be recouped.

Impacts on reserving levels and capital requirements would need to be taken into account.

An analysis of the potential overall impact on profits would be required.

The sensitivity of profit may also be investigated as would any changes in the risk profile.

There may be regulatory requirements to take into account when amending a policy (e.g. ensuring that the charges and underwriting proposals treat customers fairly).

If the likely overall sum at risk on the converted business is high then the company might want to consider reinsurance, and so the proposal would have to be discussed with reinsurers.

This question was generally poorly answered, many candidates did not properly understand the guarantee being applied to the contract and did not discuss the additional charges that the company would take and the impact that they would have on the expected maturity value

3 (i) **Additional units approach**

The unit price remains constant. The company allocates additional units to each contract at the bonus declaration date, this could be using a compound or super-compound approach. The number of bonus units is determined at the discretion of the company. Bonus units added may be zero but units will not be taken away.

Unit price approach

No additional units are allocated. The price of a unit changes to reflect the bonus addition. The level of the movement in the unit price is at the discretion of the company. The change may be zero but will not be negative.

(ii) **Product Features**

The company needs to consider whether the UWP contract is to be offered as a stand alone product, or as an option within the existing unit-linked bond.

The company needs to consider how regular bonuses will be added to the policy, either through addition to units or by changing the unit price and on the split between reversionary and terminal bonus.

A scale of surrender penalties will need to be determined, and the company may decide to use the existing scale for the unit linked bond and amend if appropriate.

The company must decide whether any terminal bonus should be included on surrender and if so, from which point in the term of the policy.

The company is likely to introduce the right to apply Market Value Reductions (MVRs) to the face value of units.

The size of the MVR will be at the discretion of the company.

The company might consider offering one or more "no-MVR guarantee" dates, e.g. on the tenth policy anniversary.

The death benefit should be defined, e.g. return of fund value.

The company might guarantee that no MVR will be applied on death.

The company will need to decide if the death benefit should include any extra element of terminal bonus.

If no terminal bonus is paid on death and/or surrender then the company would need to consider how it ensures that policyholders are treated fairly regarding the regular bonus allocation.

Charges could remain in current format as those applied to the unit-linked version of the bond, or the company could take charges implicitly through bonus rates.

The company may need to review level of charges if any experience assumptions have changed.

The company would need to consider how to treat increments/top ups.

The company would need to consider whether it was going to alter the maximum and minimum limits, for example on premiums, ages or terms.

When considering the product features to offer the company would also need to consider the product features offered by its competitors.

The product feature may be restricted by the ability to incorporate them on the company's administration system.

Assumptions
Investment growth assumptions will differ from the unit-linked version as it will depend on the mix of with profits assets chosen.

A stochastic investment model is required if any "no-MVR guarantee" dates are given.

Lapse rates will need to be reviewed.

The bond is likely to appeal to a different target market so different experience may be expected.

The company will need to allow for the impact that the change in surrender penalties will have on lapse rates.

The company also has to consider selective lapses if a "no-MVR guarantee" date is given.

Expenses may differ from the unit-linked version of the contract.

The ability of the charges to recover development expenses would also need to be considered.

The company would need to reconsider its assumptions regarding the level of new business volumes and new business mix to review the recoverability of expenses.

The company may need to review the expense inflation assumption too.

The company needs to decide what level of commission to pay.

Mortality is unlikely to be materially changed from the unit-linked version.

The company would need to reconsider its assumptions regarding the level of new business volumes and new business mix to review the recoverability of expenses.

Part (i) was reasonably well answered. In part (ii), answers tended to be generic rather than focusing on the specific product features of a unitised with-profits product. Better candidates were able to demonstrate an understanding of the contract and describe the product features well such as death and surrender benefits and details regarding how an MVR might be applied.

4 General information on existing DSFs

First of all the insurer will consider whether DSFs are already common in the market place and the portion of total sales of life policies sold through DSFs compared to other channels by their competitors.

If DSFs are already quite common and well established, analysis will be carried out on the competitors' sales forces, such as collecting details about the size of the sales forces, the branch networks/coverage of each geographical area, and the level of sales achieved by those sales forces.

The insurer may be able to get statistics from an industry body relating to the productivity of direct sales forces in the market.

The company would also want to decide upon the size of the direct sales force required.

Consider how other companies, who currently only sell through independent intermediaries, will react and the impact this will have on company's ability to develop a direct sales force.

Costs

In order to understand the costs of having a DSF, the life insurer will need to consider both the initial development costs and those that will be incurred on an ongoing basis.

The following will be important:

- The management structure used to manage the DSF e.g. number of agents to a supervisor, the number of supervisors to a branch manager, the number of branch managers to an area manager and so on.
- The level of infrastructure maintained by competitors e.g. size and location of branches (whether high street or not), type of working (e.g. sales agents may mainly be on the road with the branches providing flexible office space for a small proportion of the total number of agents at the branch), the facilities at the branches and provided to the DSF.
- Whether any basic fixed salary is paid to the DSF (the sales people and the different layers of managers).
- Level of productivity – measured by number of policies sold per month, average premium income collected each month.
- Average variable commission earned per sales agent per month.
- The level and types of incentive schemes used by the competitors to incentivise performance e.g. membership of special "high performer clubs", competitions, perks on achieving certain sales levels.

The life insurer will need to consider how sales agents will be recruited and trained. In particular, the insurer will need to consider what proportion of those hired will actually turn out to be productive agents.

Recruitment and training costs may be significant and the insurer will need to factor this into the overall costs of establishing a DSF.

Training costs may be heavily influenced by local regulations e.g. there may be a requirement for each sales agent to receive x hours training, or to pass certain exams before they are able to sell to the general public. These mandatory training costs need to be taken into account.

Similarly there may be compliance regulations, such as carrying out background checks at the recruitment stage, that also need to be taken into account.

There may also be higher ongoing costs in relation to the DSF due to more onerous regulatory requirements, which would need to be understood thoroughly.
Having assessed the potential development costs, the insurer will need to consider whether it has the capital (or access to the capital) to establish a DSF.

In particular, the level of capital required may limit the geographical coverage that the company can achieve or could perhaps limit the number of branches it can afford to establish initially.

The life insurer will also want to consider whether to do things differently to its competitors e.g. it may decide to only establish super-branches in key cities, with most DSF agents working from home.

The life insurer will also need to decide how it will solicit leads in the first place e.g. through the establishment of a tele-sales unit, since these factors will influence the infrastructure costs.

The life insurer may be able to save some costs by having less underwriting on the business sold by the direct sale force compared to insurance intermediaries.

Impact on existing sales channels and quality of business

The DSF may target a different socio-economic class than the existing intermediary channel.

If this is the case then the insurer will want to consider whether to launch a specific range of products aimed at this sales channel e.g. with lower sums assured, lower minimum premiums etc.

Different socio-economic classes generally tend to exhibit different levels of experience, for example, mortality, different lapse rates, possibly different increment rates. Also, higher margins may be required in the pricing assumptions due to the uncertainty in the assumptions as this is a new product to the company. Hence in order to be able to offer products that are competitive to the existing intermediary channel it may be necessary to launch separately priced products. The administration system may need to be changed in order to allow for the differential pricing.

The size of policies written by the direct sales force may be smaller, which may impact any cross-subsidies previously allowed for.

The life insurer will be particularly keen to understand what its competitors have done in this regard e.g. whether they have launched differentiated products for this sales channel and also whether there are any industry statistics e.g. that demonstrate the different lapse rates experienced by different sales channels.

The life insurer will want to ensure that there is no detrimental impact on its existing business from the intermediary channel. In particular, it will be important to ensure that the intermediary channel does not see the DSF as a threat to its own business. This issue may be largely solved through targeting a different socio-economic class of policyholders, different geographic regions, possibly where the intermediary channel is not so strong etc.

Risks

There are specific risks associated with setting up a DSF, the most important being mis-selling risks. In some markets in the past, when DSFs were common, insurers have been charged significant sums of money for failing to demonstrate that their products were well and fairly sold and that the customer understood the product at the time it was purchased.

Mis-selling risk can only be reduced by ensuring that compliance procedures are tight e.g. in terms of the paperwork that has to be filled in when a sale is made, and through regular auditing to ensure that those compliance procedures are followed.

Other risks can be mitigated by aligning policyholder and sales force interests such as reviewing the commission structure to encourage persistency.

However, given that most mis-selling scandals only became scandals many years after the sales were made due to a wide variety of factors (consumer pressure, legal and political environment etc), it is impossible to totally remove mis-selling risk.

DSFs have the ability to ruin an insurer's reputation, since the DSF becomes the face of the insurance company and will be the first point of contact for most customers. Hence there is a high degree of reputational risk at stake in establishing a DSF.

The life insurer may want to consider the reputation of competitors' DSFs and what those companies have done to achieve those good or bad reputations.

One of the key risks is that the life insurer fails to establish its DSF well and that the DSF is insufficiently productive. This could lead to the DSF closing after a short period.

This is a real risk due to the high cost of establishing a DSF (e.g. establishing a branch network) – low volumes sold would not recover these costs.

Setting up a DSF is also difficult without prior experience. One way to mitigate this risk would be to hire in expertise e.g. recruiting a new sales director from a competitor with a well established DSF.

Other

The life insurer will consider whether there are any incentives to set up such a sales channel e.g. tax incentives.

The company may also consider buying a direct sales force rather than trying to establish one from scratch.

The company would also compare setting up the direct sales force with other alternative options, such as tied agents or direct marketing.

Generally well answered, though many candidates did not adequately describe items such as geographical coverage, analysis of competitor direct sales forces and limitations of capital on plans to set up the DSF. A common mistake made by candidates was to spend time describing direct sales forces and insurance intermediaries rather than answering the question being asked.

5 (i) **Product features**

For both products single or regular premiums could be paid and contracts could be on a single or joint life basis.

Term assurance

The benefit is payable on death of the life assured, within the term of the contract.

There is no surrender value payable under the contract and the contract expires if the required premiums are not paid.

The benefit can be level or decreasing through the term, once chosen at outset, the insurer cannot alter the benefit or premiums paid by the policyholder.

The contract can be used to provide protection against the financial loss of the death of a key person or can be used to provide a benefit on death to cover the outstanding balance on a loan.

The group equivalent of the contract can be used by an employer to provide benefits to an employee's dependants upon the employee's death.

The convertible form of the contract allows policyholders to convert their policy to an endowment or whole of life contract, or to renew their existing contract. Conversion or renewal would be without the need for further medical evidence.

Unit-Linked Endowment
The benefit is payable on survival to the end of the term of the contract, chosen at outset.

A benefit is also provided if death occurs within the term of the contract.

A surrender value would be payable within the term of the contract, subject to a possible surrender penalty in the early years.

The level of the benefit payable on survival to the end of contract would be dependant upon the value of units held in a number of unit-linked funds.

The level of the benefit payable on death tends to be a fixed monetary amount or the value of the units held, if higher.

Charges to cover the cost of any life cover and expenses can be taken from the premium before being used to purchase units or deducted from units already purchased. The charges can be guaranteed or reviewable.

The policyholder can select which fund or funds to invest in and can switch between different funds.

Premiums payable by the policyholder can be flexible.

The product can be used to cover an interest only mortgage.

(ii) **Risks to the policyholder in purchasing the product**

Either product
There is a risk that the insurer may become insolvent and the dependants may not receive the full benefit.

There is a potential mis-selling risk that the policyholder did not understand what they were buying.

Term assurance
The risk to the insured is that the benefit selected at inception turns out to be insufficient either due to changing circumstances or erosion from inflation.

The policies tend to be inflexible, which means that the product cannot be altered to meet changing financial needs throughout the contract term.

The policyholder is at risk of not being able to meet premiums due to accident, sickness and redundancy.

For the convertible form, there is the risk of not being able to afford the new policy at conversion.

Unit-Linked Endowment
The maturity benefit will have some protection against erosion from inflation, however the policyholder is subject to risk from poor investment performance over the term of the contract and at the point the maturity benefits are payable.

Poor investment performance can be due to either general market movements or poor investment management relative to other companies.

The company may not have sufficient history of selling unit-linked policies so the historic unit fund performance may not be known, if the funds are managed internally.

The minimum death benefit tends to be fixed in monetary terms and so could be at risk from erosion from inflation.

The charges may be variable on the product and the policyholder may be at risk from unreasonable increases to the level of charges.

There is a risk that the policyholder has to surrender the policy early on in its term and may as a result receive poor value for money due to high penalties or front end loaded charges.

(iii) **Risk to a company of selling the product**

Mortality
The company is at risk from actual mortality experience being worse than that allowed for in the pricing of the contract. For the term assurance the premium cannot be changed to allow for this.

The experience may differ due to model risk, parameter risk or random fluctuations risk.

For term assurance sold to groups of lives, there is the risk from concentration and aggregation of risk from a large number of claims resulting from a single cause.

The unit-linked endowment may enable the company to review the mortality charges applied on the product. However the company may be restricted in the frequency of the reviews or the level of increase that can be applied.

Related to the mortality risk is an anti-selection risk, particularly for the individual term assurance product. There is less anti-selection risk for endowment assurances as these are more likely to have been purchased for savings rather than protection and are often linked with mortgages.

Expenses and the effect of inflation

There is a risk to the company of actual expenses being higher than those loaded into the term assurance or unit-linked endowment premium.

There is also a risk that expense inflation is higher than assumed when the products were priced.

In a similar way to mortality, the company may be able to review the charges applied on the unit-linked endowment, but may be restricted on the level of increases by policyholders' expectations.

Investment performance

The company is at risk from adverse publicity or poor persistency if the investment performance on the company's unit-linked funds is worse than its competitors.

The company is exposed to investment risk under the unit-linked endowment assurances to the extent that there are any guarantees regarding a minimum death or maturity benefit. In addition charges linked to the unit funds will also be reduced as a result of poor investment performance.

There is some investment risk to the company under term assurances, but this is limited due to the low reserves and likely fixed interest investments.

Withdrawals

The company is at risk from withdrawal experience (lapses on the term assurance and surrenders on the endowment) being different than that allowed for in the pricing assumptions.

Higher withdrawals than expected may have a selective effect on the mortality experience where healthy lives lapse their policy, worsening the mortality experience on those who remain.

Higher withdrawals may also affect expense experience where fewer policies remain than expected reducing the company's ability to recoup overhead expenses.

Higher lapses at the initial durations in force may impact the ability to recoup initial expenses that were incurred.

Higher than expected withdrawals on the unit-linked endowment assurances also reduces expected future profit margins.

Higher than expected withdrawals early in the policy term can be a significant problem under a decreasing term assurance product (where level premiums are used to support a decreasing benefit).

New business
There is a risk from selling too much new business that may affect the company's solvency position and administration capabilities.

There is a risk from selling insufficient new business that may affect the company's ability to recoup expenses.

The company is at risk from the nature and size of contracts being different to that allowed for in pricing the contract, invalidating any cross-subsidies allowed for, or increasing the mortality risk.

A change in the mix of new business by source may invalidate the pricing assumptions used for mortality and expenses.

Guarantees and options
If convertible term assurances are being sold then there is a risk that the cost of the option loaded in to the premium is insufficient for the level of risk being taken on.

There is also additional anti-selection risk associated with this option, given that there is no further underwriting.

Competition
There is a risk that the management may reduce premium rates on the term assurance in order to gain market share, particularly as the market is likely to be highly competitive.
There is a risk that the actions of competitors reduce the market share for the company, impacting upon the company's ability to recoup expenses.

Actions of distributors
There is a risk that distributors may act in their own interests rather than in the interest of their clients. For example encouraging business to lapse and re-enter on term assurances.

There is a mis-selling risk due to poorly explained products resulting in unsuitable sales and the potential for damage to the company's reputation and regulatory fines.

Counterparties
It is likely that the company will utilise reinsurance to reduce its risk profile, in particular on the term assurance, this introduces the risk that the counterparty will default on its commitments.

There will also be default risk on any corporate bonds held to back the term assurance business, although given the low reserves this may not be significant.

Other
There is a risk that there may be changes to the legal, regulatory or fiscal regime that will affect the policyholder and/or the company.

The company is a risk from fraud perpetrated by staff, policyholders or third parties, for example, fraudulent claims on the term assurance.

The company is also at risk from failure of systems and controls and from data errors.

This question was generally well answered, parts (i) and (iii) more than part (ii).

6 (i) The aggregate asset shares at the year end are calculated from the following formula:

Aggregate asset shares at start + premium income + investment income – initial expenses – renewal expenses – commission – claims – shareholder transfers

Working in $000:

Total asset shares at start = 70,000
Investment income = 4,300
Premium income = 15,000*600/1,000+2,000*700/1,000 = 10,400
Initial Expenses = 1,500
Renewal expenses = 510
Renewal commission = 10,400*.02 = 208
Claims = (150*6,000+60*5,500+5*4,000)/1,000 = 1,250
Shareholder transfers on declared bonuses =
0.04*[(10,000–150)*5,000+(5,000–60)*4,500+(2,000–5)*3,500)/1,000/9 = 348.7
Shareholder transfers on TB on death =
(150*1,000+60*1,000+5*500)/1,000/9 = 23.6
Total = 80,860, i.e. $80.86 million

(ii) To determine the mortality factor to use:
Expected deaths = .02*10,000+.01*5,000+.007*2000 = 264
Actual deaths = 150+60+5 = 215
Factor F = 215/264 = 0.81439

(iii) **Working in $000**:

To determine the investment rate to use for individual asset shares:
(70,000+10,400–1,500–208–510)*i = 4,300
i = 5.5%

Now working in $:

Renewal expenses per policy = 510,000/17,000 = 30
Initial expenses per policy = 1,500,000/2,000 = 750

Individual asset shares are calculated using the following:

(Asset share at start + premium income + investment income – initial expenses – renewal expenses – commission – death rate * (death outgo + shareholder transfers on TB paid)/(1- death rate) – shareholder transfers on declared bonus

Note that shareholder transfers on declared bonuses are after death claims and so are not grossed up for deaths.

Cohort A:

Death rate = .02*0.81439

((5,000+600*.98–30)*1.055–(6,000+1,000/9)*0.81439*.02)/(1–0.81439*.02) –.04*5,000/9 = 5,837

Cohort C:

Death rate = .007*0.81439

((0+700*.98–30–750)*1.055–(4,000+500/9)* 0.81439*.007)/(1–0.81439*.007) –.04*3,500/9 = –139

For information (no marks)

Cohort B*:*

*Death rate = .01*0.81439*

((4,000+600.98–30)*1.055 – (5,500+1,000/9)* 0.81439*.01)/(1–0.81439*.01) -.04*4,500/9 = 4,782*

(iv) The sum of the individual asset shares is (in $000):

5,837*9,850+4,782*4,940–139*1,995 = 80,840

This differs very slightly from the aggregate asset shares due to the approximation in the death rates applied to the individual asset shares.

Factors implied for each cohort :

A: 150/10,000/.02 = 0.75
B: 60/5,000/.01 = 1.2
C: 5/2,000/.007 = 0.36

To apply separate factors to every mortality rate would be like deriving a company specific mortality table.

This is likely to become volatile year on year and also impractical for systems.

Using the individual asset shares (with F factor) means that mortality experience is smoothed.

Using the F factor shares mortality risks between cohorts, which is consistent with the idea of pooling risks using the additions to benefits method.

As aggregate asset shares and sum of individual asset shares are close then using individual asset shares to determine payouts will result in total payouts being close to the available asset share and hence little change in free assets. However, there will have been some cross-subsidy between cohorts.

In addition the data could be spurious, with some rates being zero for cohorts in certain years.

This could make asset shares for very similar cohorts different for no easily explainable reason.

If the company wanted there to be no impact of mortality differences they could find the death factor by back solving to get the same answer, but this could be complex.

A simple factor applied to all asset shares to eliminate the difference could be an alternative. This has the advantage of being simple to apply across all products and ensures that the difference between actual and expected deaths is spread across all business. In the above example the factor would be 80,860 / 80,840 = 1.0002

Care would have to be taken that any other differences between the sum of the individual asset shares and the aggregate assets were not mistakenly classed as mortality differences when adjustments are made.

Part (i) was well answered although many candidates failed to write out the formula for the asset shares and hence their solutions were, in some cases, difficult to follow. Part (ii) was very well answered by those that attempted the question. Part (iii) was not well answered. Better candidates appreciated the need to use the factor F derived in part (ii) in the solution to part (iii). Part (iv) was very poorly answered, however those candidates that made reasonable attempts at parts(i) and (iii) were able to describe the differences between the two.

END OF EXAMINERS' REPORT