INSTITUTE OF ACTUARIES OF INDIA

SUBJECT CA1 –Paper I

May 2011 Examinations

INDICATIVE SOLUTION

Q.1)

Part (a)

i. Risk premium rate is calculated as Expected claim frequency * expected cost per claim.

ii. Since it is a new product line for the company it will not have any past data to estimate claim frequency and cost per claim.

iii. The nature of risk is heterogeneous and therefore it may be difficult to arrive at standard risk premium rates.

iv. The business volumes from this line of business can be expected to be small and hence one can't rely on smoothing or averages i.e. volatile experience can be expected and hence individual underwriting is required.

v. The company will need to underwrite each and every case for which expert advice will be required to assess the condition of each car. It is likely that reinsurer assistance will be required in underwriting and setting risk premium rate

Part (b)

To estimate frequency and cost, the following information is required of each car:

- Age of the car
- Make of the car
- Frequency of car servicing
- Availability and cost of motor parts
- Use to which vehicle is put to- pleasure, vintage car rallies, rental for occasions
- Details on the users of the car- age, sex, experience etc.
- Claims history of the car, if any
- Maintenance of car,
- Level of security
- Value of car (could vary a lot between vehicles and be very high for rare models),
- Mileage (both total historical and annual), and
- Number of such cars an owner has (to understand concentration risk).

[Total Marks – 5]

Q.2)

Part (a)

Expected and required return equations
Equity

Expected return = dividend yield (*d*) + expected dividend growth (*g*)
Required return = risk-free real yield (*rf*) + expected inflation (*exp infl*) + equity risk premium (E*RP*)

Conventional government bonds

Expected return = gross redemption yield (*GRY*)
Required return = risk-free real yield (*rf*) + expected inflation (*exp infl*) + inflation risk premium (*IRP*)

Part (b)

The yield gap is defined as:
equity gross dividend yield less the gross redemption yield on a long-dated benchmark bond.

Equating expected and required returns for each asset class gives:
$d + g = rf + exp\ infl + ERP$ ---- (1)
$GRY = rf + exp\ infl + IRP$ ---- (2)

Subtracting equation (1) from equation (2), and rearranging gives, reverse yiels gap:
$GRY - d = IRP - ERP + g$

Part (c)

Possible reasons for a relatively high reverse yield gap include:

i. high expected inflation
ii. or a high inflation risk premium – this could be because future inflation is highly uncertain. It might also be because all investors want real rather than nominal returns.
iii. high expected real dividend growth, eg after a recession or when pay-out ratios are very low.
iv. a low equity risk premium – the market perceives equities to be low risk (*e.g.* investors are not worried about short-term price volatility) and they want long-term inflation protection.

[Total Marks – 6]

Q.3)

Part (a)

Yield differences could be caused by:

i. In general the yield margin between government and corporate bonds of same nature and term depends on both the relative marketability and security of government and corporate bonds.

ii. In addition the difference could be influenced by other "non risk" influences on the relative supply and demand for these bonds.

iii. Marketability of the issue- will depend on the size of the issue and whether the bond is listed (or not) or otherwise actively traded.

iv. Security will depend on– credit worthiness of the issuer, overall debt position of the issuer, stock or sector issues or general economic prospects (applies to both in that some corporate debt is less risky than some government debt) and the ability of an issuer to service its debt.

v. Other supply/demand factors could cover tax, restrictions (investors forced to hold government debt), central bank or global action eg funding policies or simply irrational panic – flight to quality.

Part (b)

A defined contribution scheme is really a collection of individual accounts for active employees. Post retirement with the proceeds of the individual accounts, annuities are purchased for employees. Hence there are not many explicit fixed monetary liabilities to match.

i. Since the main purpose of the scheme is to ensure that adequate pension can be purchased at maturity, a sound investment strategy would be high exposure to real assets in the initial years to gradual switch to bonds towards maturity to match the need to purchase an annuity. In that context fixed interest securities and corporate bonds are attractive for a DC scheme.

ii. Even otherwise, corporate bonds could be attractive in times of uncertainty over real assets eg if inflation is expected to fall. That is, they could be a tactical choice based on expected returns.

iii. Regulations may explicitly or implicitly favour fixed over real assets

iv. They provide diversification from government debt and there are a range of companies available to provide diversification within the sector eg risk margins vary.

v. Tax could be another reason for their attractiveness relative to real assets.

vi. Compared to government paper corporate bonds have a higher credit risk but provide higher yield as well. The chance of earning extra returns may make corporate bonds attractive to members/trustees of a DC scheme, though this will depend on their risk appetite.

vii. Some types of corporate debt may have additional options to consider, for example convertible loan stock which though riskier than plain vanilla bonds may be attractive to members/trustees if they want some extra returns

[Total Marks – 8]

Q.4)

Part (a)

- Waiting period- In the case of health insurance it is the period beginning at the policy inception during which the policyholder is not allowed to make a claim.

- Pre-existing ill ness-Any ill-ness that a policyholders suffered/suffers from before/at the policy inception date. Certain health insurance policies may disallow a policyholder from making any claim relating to pre-existing illness during the course of the policy.

Part (b) (i)

i. Health insurance products have complex policy conditions and usually it is difficult for a customer to appreciate benefits available. It is difficult for customers to compare product offerings from different companies.

ii. Standard terms and conditions will help with comparisons and will clarify things so that customers know exactly what the terms are so overall thee is less room for confusion. The steps proposed by the regulator are likely to make it easier for customers to compare product offerings by different companies.

Waiver of waiting period: It is attractive to policyholders and gives them the assurance of full cover from day one of purchase. Health products with waiting period

may not appeal to the prospective policyholder as they may not like the idea of paying premiums with no entitlement to benefits during the initial period.

Covering pre-existing illness after a period of 3 years: This would give assurance to a section of population who are currently suffering from life style diseases like diabetes, blood pressure etc. to get some level of cover for complications arising out of pre-existing illness at some point of time in future.

iii. Both these proposals seem to give natural terms i.e. what customers would expect

iv. They may also reduce hassles at the claims stage as there will be fewer conditions to check

.

Part (b) (ii)

i. Removal of waiting period might make companies review and strengthen underwriting norms if risk premium rates are to be retained or increased only marginally. Probably all cases (especially above a specific age) will have to be medically underwritten, which may result in increase in cost and hence premiums.

ii. To allow for anti- selection /coverage of pre-existing illness, health companies may increase their premium rates. This may discourage healthier lives to take cover and overall, the experience may deteriorate.

iii. Covering pre-existing illness, may reduce moral hazard and selection against the insurer as this change may actually encourage customers to make disclosure on pre-existing illness at the time of purchase. On the other hand it is also possible that, as disclosure implies a higher premium, people may not disclose and hope that claims arise after 3 years

iv. Reinsurance may become costlier, or become difficult to get.

v. Underwriting and claims staff has to be retrained which may lead to increase in costs initially.

vi. Some level of standardisation may happen which could be beneficial generally, but, it will reduce the attractiveness of the products to savvy customers and could also reduce choice and flexibility in the market.

[Total Marks – 8]

Q.5)

Part (a)

i. The purpose of solvency capital is to ensure that together with technical provisions an insurer is able to meet his commitments under all foreseeable circumstances.

ii. The purpose of the factor based approach could be -
(factor * sum at risk) – to determine a capital requirement in relation to mortality risk
(factor * reserves) – to determine a capital requirement in relation to inadequate reserves.

iii. A disadvantage of a two factor solvency model is that it may not adequately capture all risks an insurer is exposed to.

iv. Moreover, the factors may be chosen to be appropriate for a typical insurance company with typical risks – they are unlikely to be suitable for all companies

v. In respect of the 2 products mentioned above the inherent risks are different, for e.g., for the term insurance plan mortality risk is a significant risk whereas market risk is significant risk for the 2nd product due to Guaranteed Minimum Maturity Benefit (GMMB).

vi. For term product, reserves are likely to be small and hence the first factor is likely to contribute significantly less to solvency capital requirement than the second sum at risk factor. The factor k2* sum at risk – could be adequate to determine a capital requirement in relation to mortality risk. However, the factor is based on gross sum at risk and does not give any credit for reinsurance. Since this is a small company it might have significant reinsurance cover.

vii. A small company is likely to be exposed to greater fluctuations in claims year on year than a larger company which a factor based approach may not adequately capture.

viii. In case of the unit linked product with GMMB the capital requirement would come only from the first factor (percentage of reserves) as the mortality risk/sum at risk is 0.

ix. The adequacy of the solvency capital would depend on the methodology of calculation of non-unit reserves especially the allowance for financial guarantee

GMMB in the non-unit reserves calculation. If the reserves are inadequate then solvency capital would also be low.

x. The 2 factor approach does not capture operational risks inherent in running any business. For e.g., failure in underwriting/claims process, mistakes in determination/recording unit price/transactions, failure of hedging programs etc.

Part (b)

i. Economic capital is the amount of capital that an insurer determines is appropriate to hold given its assets, its liabilities, and its business objectives. Typically it will be determined based upon the risk profile of the individual assets and liabilities in its portfolio, the correlation of the risks and the required level of security that the company desires.

ii. In respect of the term product there is a risk of under-estimation of insurance liabilities and adverse claims experience compared to that assumed in the calculation of technical reserves due to

a. Volatility in claim experience which is the risk of random fluctuation. Mortality risks are diversifiable but this may not hold true for small companies.

Smaller companies will have larger volatility risk than larger companies and hence may need to hold a higher capital for the same target level of security.

b. Uncertainty - This is the risk associated with using the wrong model to estimate the claims (model risk) or from an inaccurate estimate of the parameters used for the models.

Moreover, it is a small company and hence may not have adequate experience to set premiums and might have used industry, reinsurer help to set premium rates. Hence the risks mentioned above assume greater significance.

iii. Accumulation of risks and extreme events- Is the risk of low frequency and high severity. It is a small company and it is likely that there could be accumulation of risks by geographical locations. This would increase the risk to the company due to manmade and natural disasters.

iv. Anti-selection and moral hazard- Arising due to weak underwriting/claims process relative to competition or due to internal process failures.

v. Since the company is small it is likely to have significant reinsurance. Credit risk arising from reinsurer default also a principal risk to be considered.

vi. Selective lapses- The market for term products is likely to be highly competitive and a company is always exposed to risk of selective lapses leading to deteriorating mortality experience.

vii. Expenses are relatively high for term policies and expense inflation is a risk if premiums are fixed.

In respect of the Unit Linked Plan with GMMB the principal risks to be considered are-

i. Market risk – risk associated with fall in value of assets and asset liability mismatching. This product has asymmetric benefits where the down side is for the company and the upside is always for the customer. This exposes the company to significant risk of the guarantee biting at the time of maturity. If the guarantee bites, it could bite for every policy hence its cost could either be huge or trivial (if it doesn't bite).

ii. Credit risk arising from asset defaults – default arising from assets will be reflected in unit price. However, since there is a GMMB the insurer is exposed to credit risk and the guarantee biting at maturity.

iii. It can hedge itself against the market risk but this will expose it to credit risk from counterparty default.

iv. It is a small company and hence there is always a risk that hedge programs might not be accessible in future due to size of transactions or could be relatively expensive exposing the company to expense risk.

v. There are also risks relating to not changing the 5% figure for new business if conditions change – eg if 5% becomes high for a bond yield and hedges could not be found even if the company wanted to.

vi. There is also the risk that hedging to stop the guarantee biting will reduce returns and so company loses business.

vii. Risk arising from policyholder dynamic behaviour- The policyholder depending upon whether he sees value in the financial guarantee may stop /continue paying premiums or surrender the policy.

viii. Operational risk from failures in process relating to hedge programs, unit pricing system, errors in recording unit transactions.

[Total Marks – 12]

Q.6)

Part (a)

Initially the insurance company (and maybe the policyholder) would incur expenses in setting up the policy.

The insurance company would then pay the policyholder an annuity until death.

There is a notional payment from the insurance company to the policyholder representing the rent that would otherwise be obtainable on the property.

On death, the insurance company could receive a cash sum
equal to net sale proceeds.

Alternatively, they could receive an income by renting out the property.

The amount and timing of the annuity is known.

But the amount and timing of any proceeds on death is unknown.

Part (b)

The main advantages to the homeowner in taking out this product are:

i. If homeowner is asset rich but income poor then this uses the asset efficiently by releasing equity ie they need income.

ii. The customer may be seeking security ie he wants income and accommodation for life.

iii. Living off sale proceeds may not give this

iv. As other assets that could be purchased with the sale proceeds won't give the guaranteed income for life.

v. Customer can also buy an annuity from sales proceeds but probably a standard annuity could be more expensive and a worse deal than under the equity release.

vi. Customer may not be having any dependents and hence no requirement to leave the house property to any one after his death.

vii. Home ownership is an area most people are sensitive about and the product entitles the home owner to keep this property which they may be attached to.

viii. Selling his home would require him to purchase or rent a new place (smaller, suburban rather than city) for his stay.

ix. Selling/buying property or renting it involves considerable time, energy and expenses which the home owner may not be interested in.

x. They may also not have the expertise to manage the residual cash

xi. Whereas an annuity is simple and easy to understand.

xii. Buying an annuity product may be more tax efficient than selling property (for eg. a home owner may have to pay capital gains tax on property sale).

xiii. The product could also be a good deal if house prices are high

xiv. Or if interest rates are high ie cash in on asset now at best time.

xv. Also could provide good value for money if he is in very good health (better than insurer assumes).

Part (c)

The risks to the insurer-

i. On death of policy holder the insurance company has to sell the property to achieve a cash inflow, which is unknown in both amount and timing, including timing relative to the point of death. The insurer can consider renting out the property but it will still involve administration expenses and hassles.

ii. Property especially house price returns are very volatile and can be subject to political issues or other uncertain risks eg fashion or blight.

iii. Investment risk is with Life Insurance Company. There is risk of home value falling short of the annuity pay outs and notional rent.

iv. The reverse is also possible and the company may get bad publicity and be accused of profiteering from the elderly. There could also be legal challenges from relations eg mis-selling issues.

v. The insurer will have expenses related to selling and maintaining the policy. Especially significant expenses could be involved in property valuation and it may not always be possible to load all expenses in the policy.

vi. Risk of not achieving adequate business volumes leading to higher expenses than allowed for in pricing leading to loss.

vii. There is a risk of anti-selection in that only healthy lives take the product leading to risk of underestimation of longevity risk.

viii. The policy may be perceived to be poor value, especially in the event of early death, and because when calculating the annuity rate the company will have to reflect the risks of matching a stream of annuity payments with a reversion on the house, which yields no income.

ix. Valuation of the asset (property reverting on death of customer) will be difficult especially as the market is volatile and hard to use as a match for liabilities of an insurer (eg negative income initially).

x. Any house valuation is likely to include a margin for risk and may not reflect the value on a competitive open market leading to customer dissatisfaction and loss of new sales.

xi. Perception of poor value in respect of lack of flexibility eg restrictions placed on homeowner in terms of renting out, raising loans, altering property or cashing in on further capital appreciation. This could lead to significant customer dissatisfaction and bad publicity.

xii. Unexpected legislation impacting such products (likely considering the sensitive nature of business).

[Total Marks – 12]

Q.7)

Part (a)

Defined benefit schemes

i. A benefits scheme where the rules define the benefits independently of the contributions payable and where benefits are not directly related to the investments of the scheme.

ii. Typically such benefits are expressed in terms of monetary amounts, salaries or other specified costs. The scheme may be funded or unfunded.

Part (b)

Risks under a defined benefit post-retirement medical scheme

The key risks to the sponsor are

i. Costs are greater than expected and the 10% contribution from retirees may not be adequate to cover the benefits over the long term
   - due to steep increase in medical inflation or change in future trends to claim
   - Note that premiums are fixed so if inflation is high, contributions would be inadequate to cover benefits
   - The basis, model and assumptions based on which the 10% contribution has been arrived at may be incorrect,
   - Given lack of data and experience for older /sick people costing would be difficult

- If the nature of employer is industrial then many illnesses may not develop until later in life so unknown exposure.

- The cost of the benefit itself may change, for example:
  - new medical treatments may be developed that have to be paid for
  - the employer changes the benefits provided (by choice or in response to regulation).

ii. Only the really sick of the retired avail the voluntary benefit leading to anti-selection. This possible anti-selection increases the risk of mis-estimation of costs of the benefits.

iii. More people than expected receive the benefit. This may be due to:

- improving mortality, so people live longer (though not necessarily in good health) in retirement
- an increase in morbidity, so that more people require treatment
- a fall in the quality / availability of any State care that means people are more likely to take up their private care benefit.

iv. Since the medical insurance scheme is unfunded and operated on a PAYG basis then liquidity risk is borne by the employer.

v. There is risk of large number of claims happening at once. Coupled with volatility of contributions would make cash flow planning difficult for employer.

vi. Large cash out flow due to claims may be required at time when the employer needs liquidity elsewhere in the business or may be making losses etc.

vii. If there are large no of retirements, redundancies and there is need to pay benefits for a huge number of retirees, in such a worst scenario the increasing costs could lead to insolvency of the employer.

viii. The retiring employees do not see value for money and the healthy ones withdraw from the scheme exposing the employer to risk of anti -selection. The risk of anti-selection is further increased if retirees are allowed to leave and re-join at any time in the future.

ix. Further risks may result from:

- loss of funds due to fraud or misappropriation
- Administrative costs being greater than expected- if the scheme is made open to all existing retired employees then there are additional expenses associated with keeping in touch with retired employees, communication, maintenance of proper records. It is also harder to check on valid claims from retired employees.

- Same benefits are offered to both employed and retired. This could create issues when-
    - changes in legislation require major alterations in benefits to current employees .
    - Employer can consider providing increase in cover benefits to current employees for various reasons eg in lieu of pay rises.

  The implications of such decisions on retiree costs needs to be considered.

Part (c)

Following mitigating measured can be considered-

i. Putting limits/sub-limits on benefits- maximum for treatments/illness, room rent, etc.

ii. fixing a maximum term or upper age for benefits,

iii. indexing contributions to inflation,

iv. underwriting those who opt for the arrangement,

v. claims control i.e. verifying claims , especially large ones, and

vi. restrict choice of care provider to control claims costs

vii. remove option of lapse and re-entry and allow one time entry

viii. consider purchasing insurance

ix. consider converting from PAYG to funded benefits

x. Not offer same scheme to current and retired employees and avoid frequent changes in scheme design for retired employees- eg., restrict benefits to retired employees, offer lower benefits

xi. Restrict the eligibility to employees retired during the last 5 years instead of offering to all retirees

Some of these measures will lead to increase in costs and a cost-benefit analysis needs to be done.

[Total Marks – 15]

Q.8)

Part (a)

Uncertainty relates to Variability in Claims

i. Variability will exist in terms of frequency, incidence and cost of handling claims. Since liability is long tail business there will be significant delays from occurrence to notification and from reporting to settlement resulting in uncertainty regarding the ultimate cost of claims.

ii. However, since the company is large it could have adequate data relating to claims.

iii. If there have been significant changes in cover, target market in terms of industry/types of products covered etc. covered over the last few years then probably there won't be sufficient data to make estimate of ultimate cost.

iv. With development of new types of industries and related claims (eg., RSI from computer related work) there may be limited industrial data available and less experience would have emerged making estimation of claims costs difficult.

v. There is risk of anti-selection if company has relatively lax underwriting standards compared to competition.

vi. Attitude to claims is changing with increasing awareness among industrial workers of their rights leading to an increase in propensity to claims.

vii. Risk of adverse impact of judicial awards and/or new legislation on employer liability claims as society becoming increasing litigious and frequent intervention of courts in claims awards (eg. Asbestosis claims, RSI claims). This could affect both the amount and number of claims.

viii. Catastrophic events like a major accident in working place (poisonous gas inhalation, leak in a chemical factory) leading to extensive losses from one event.

ix. Employer liability business is highly sensitive politically. There is significant risk of changes in legislation (increase in compensation for accidents in work place) even with retrospective effect some time.

Part (b)

Business risks

This insurer may be exposed to the following business risks:

i. poor persistency i.e. high lapses and low renewals. A large and established firm can be especially prone to this in the face of new emerging competition.
ii. new business volume too high and hence new business strain. The company is large and if it has significant free assets new business strain may not be much of an issue.

iii. risk of un-anticipated regulatory changes, which could impact it more significantly than newer/smaller players in the market(it must be having lots of legacy business, latent claims)

iv. The prices may be uncompetitive leading to lower new business/renewals than expected. If business is lost then costs will rise as fixed expenses still have to be recouped over fewer policies than expected.

v. Poor service standards than industry and customer dissatisfaction leading to bad publicity and loss of business.

vi. It is a large company and changes in administration process and adopting new technology might be more difficult for it than a smaller company. That is attempts to update systems or processes could be expensive

vii. Expenses are higher than that allowed for in pricing - e.g., escalating claims handling costs or expected economies of scale not emerging.

viii. Due to its large size it may less nimble in adapting to changes – eg.use of new distribution channels, than smaller and new companies on the block. This could lead to loss of new business

ix. Business mix different than expected and if the company was using an "average rate" (cross subsidy between different lines of business, different industries etc.) which may lead loss overall.

x. If this insurer writes significant volumes of this business alone then at the bottom of the underwriting cycle they will either lose business, which will put pressure on fixed expenses or they will have to charge lower premiums, which will decrease the solvency position.

xi. Likewise if they try to retain market share by reducing premiums, there is the risk of writing unprofitable business.

xii. Even though it is large, it may be over exposed to some industries or regions (eg overseas business).

Part (c)

i. According to the principles of investment the insurance company should select investments that are appropriate to the nature, term and currency of the liabilities, and should maximize the overall return subject to its appetite for risk.

ii. Employers' liability claims are generally longer tailed and costs are influenced by salary and price inflation and hence there is greater need to hold longer dated assets providing real returns since they are a better match for liabilities.

iii. Index-linked government bonds are appropriate match for liabilities that are real in nature. However, since claims are likely to be linked to salary /price inflation, investments in fixed/index linked securities only may not provide adequate protection against claim inflation.

iv. The term of the fixed/index-linked bonds available in market may not be sufficiently long to match the term of liabilities. Supply of index linked bonds may be restricted as market is generally smaller than fixed interest securities and hence possibly may be less liquid.

v. Investment in fixed interest securities bonds may be suitable for liabilities that are fixed in nature. In the context of this company such a high exposure to fixed interest securities is only appropriate if the company is highly mature and is seeing significant fall in new business volumes and large liabilities are likely to arise in the immediate future.

vi. Otherwise the above strategy looks highly conservative.

vii. Since it is a large company it might also be able to afford a large investment team and systems for a more aggressive investment strategy.

viii. There is also a possibility that avenues for investment other than bonds are not available or are limited and hence the current strategy.

Part (d)

Advantages:

i. a major advantage could be possible higher returns leading to more profit and/or lower premiums (i.e. more business). This is especially true if large company has free reserves
ii. Equities and properties may be a better match for real, long term liabilities than fixed interest securities.
iii. And the new allocation may better reflect the split in the nature of the liabilities
iv. The proposed strategy allows investments into new asset classes and offers more diversification than the current strategy.
v. Since the size of company is large, it may be possible to invest in large unit size properties.
vi. Equity investments may enjoy higher marketability/liquidity than bonds.
vii. Within equities there is possibility to achieve diversification by sector, industry, overseas/domestic.

Disadvantages:

viii. Equity and property investments have a greater volatility in potential returns and have a higher default risk than bonds, which means there is an increase in risk.

ix. Direct property investment is less liquid compared to any other asset class, which is disadvantageous if funds are be needed at short notice to cover unexpectedly high levels of claims. Moreover, restricting to only direct property investment may lead to a risk of the company not being able to achieve diversification in its property holdings.

x. Initially there may be costs involved in setting up systems, process and hiring people to manage equity and property investments.

xi. It may take time for company to build expertise in management of investments but it can invest in stock indexes or property unit trusts in the initial years while it builds expertise.

xii. What is the rationale behind the particular percentages – they look like an equal 4 way split. Has proper modelling been done or is it just arbitrary.

xiii. Determining the right time to buy/sell. There could be capital gains tax on sale of assets and if the transactions are large in size there is risk of prices moving against the company.

[Total Marks – 16]

Q.9)

Part (a)

i. Purchasing powers of money reduced due to inflation and hence increase in fixed pension amount from CU 1000 to CU 2000. Pension of CU 1000 might have been fixed long ago.

ii. Changes in structure of society towards more nuclear families. Hence there is need for strengthening support from State.

iii. There is no other social security system operating in the country and hence the need to increase benefits.

iv. Reduction in eligibility may be to increase the spread of coverage as there may be genuine need for support from age 65 which could be the normal retirement age for majority of the population.

v. To make itself more popular among the electorate or to fulfil promises made in an election.

vi. Since it is a developing country there would be significant structural changes happening in the economy along with modernisation of industry which could have made a large number of people redundant or unemployable especially in the older age group. There could be some political pressure on the Government to increase social security benefits.

vii. Country growing richer hence government can afford it or wants to spread wealth a bit i.e. give the poor some benefit of growth.

Part (b)

On launch of National Pension Scheme (NPS):

i. To incentivise private savings and hence

ii. Reduce the burden on government in future.

iii. The Scheme may also be a means of meeting political end, i.e, make people self-reliant, build up assets and have a stake in society and hence a more harmonious society(i.e. property owners don't usually riot etc).
iv. It is possible that the CU 2000 provided by the Government may be inadequate for the majority of the population and moreover this benefit is not indexed.
v. Increasing the same in future or indexing the same might be huge burden for the government.
vi. To make younger population feel the importance of saving for retirement from an early age.
vii. To give an opportunity to an individual to plan for old age in a tax efficient and inexpensive way (as the fees will be set by the Government)
viii. Because of the tax breaks and the availability of minimum pension the Government can still claim "availability of reasonable social security".
ix. Due to the tax breaks there will be loss of revenue (at least initially) to Government and savings take a long time to come through –
x. But long term savings etc could be worth it if they can cover the initial shortfall.
xi. Moreover, as this is a developing country increasing pension savings will enable investments in long term projects. This is a source of private capital and will reduce need for government spending or borrowing. Extra growth created could feedback to higher tax revenues.
xii. Pension savings can be expected to be more long term than any other form of savings. Note that the NPS has to mandatorily invest only in domestic assets.

Part (c)

Attractiveness of NPS:

i. Attractiveness of the NPS will depend on whether more flexible, tax advantageous vehicles exist with better scope for good returns. If yes, will other arrangements be cut back or continue.
ii. That is, is this product filling a gap or a need?
iii. NPS may be especially attractive to the population with higher income as the tax advantage will be more valuable than the offset of fixed pension –
iv. Especially if real salaries are rising and the offset isn't
v. Choice of fund managers and funds to cater to the risk attitude of investors.
vi. An active and educated investor can decide fund manager/funds based on performance and economic indicators while a more passive investor can opt for a life style fund.
vii. Centralised depository means there is scope for potential cost savings.
viii. Fees for fund manager are set by Government and hence can be expected to be "reasonable".
ix. Freedom to choose pension provider from different life companies.
x. Option to switch will enable to switch from one fund manager/fund to another.
xi. May be better value as a life assurance vehicle than existing products (due to tax relief)

Unattractiveness of NPS:

i. May not be attractive to the lower strata of population as they may currently be paying no tax or do not have the income for pension savings.

ii. Tax exemption limits is fixed at CU25, 000 and is not index linked which would erode value over time. With growth in economy and salary and price inflation the tax exemption may become less significant especially if the offset rises

iii. Lack of general financial awareness and investment may create significant problems associated with investments (for e.g. Persons going for equity fund may not fully understand the implication that capital is at significant risk here).

iv. At the same time a savvy customer may find the fund offering limited (no overseas investment, no property etc.)

v. There may be risk of insolvency, negligence, fraud etc. on the part of the fund managers.

vi. Competition among the three fund managers may force them to go for low rated and high yielding assets.

vii. The fees are fixed by the government and hence if inadequate may impact fund performance, customer service etc. There may be political pressure on Government to keep the fees low which could impact fund houses and depository adversely leading to poorer service standards/performance.

viii. Any loss in the depository company also lies with the Government as it is owned by Government.

ix. Since fees are reviewable annually there is uncertainty relating to future fee structure for a member

x. Lack of competition as only 3 fund managers and 1 central depository is allowed which may lead to inefficiency. There is also limited incentive to innovate.

xi. No premature withdrawal reduces the flexibility from member's point of view as in time of dire need of funds he will not be able to withdraw money.

xii. Unit Linked scheme introduces uncertainty on the final fund available at vesting age. There is no protection from down side for the customer. Defined contribution benefits may please some but not all.

xiii. The retirement age is fixed and hence the proceeds have to be mandatorily invested on attaining age 65 to purchase pension with no scope for customer to defer his pension until markets recover.

xiv. There is only one pension option –life annuity. This may especially be unsuitable for members who are married/have dependents. The terms could be especially unattractive in times of low investment returns and guarantee cost charged by Life Company.

xv. The pension that a member may get at retirement is dependent on annuity terms available at vesting. Hence there is uncertainty on the amount of pension that a person may get.

xvi. Big problems could be cartels, corruption or cronyism i.e. fund managers get what they want from politicians at the expense of savers i.e. they can exert power over government – since if they can't make a profit the scheme fails. This leads to the chance of poor returns and demands for compensation etc.

xvii. There is risk from insolvency of insurer.

xviii. If only a few companies are offering life pension then the market could also be highly uncompetitive.

[Total Marks – 18]

[Total Marks – 100]

****