

Institute of Actuaries of India

Subject SA4 – Pensions and Other Benefits

July 2022 Examination

INDICATIVE SOLUTION

Introduction

The indicative solution has been written by the Examiners with the aim of helping candidates. The solutions given are only indicative. It is realized that there could be other points as valid answers and examiner have given credit for any alternative approach or interpretation which they consider to be reasonable.

Solution 1:

i)

1. The company by offering DB pension may aim to attract the best talent there by gaining competitive edge in the market. (0.5)
2. Company may be experiencing higher attrition rates & it may believe that DB pension scheme, if offered, may help to reverse this trend & encourage long term association of employees with the company. (1)
3. Company may believe that the long term cost of DB pension scheme will be much lower than the present 12% contribution paid for the existing DC scheme. It may believe that it has the capacity to manage the short term volatilities of DB pension. (1)
4. Even if the long term cost of DB is higher than the 12%, it may plan to reintroduce DB pension & control the CTC of employees by restructuring the other benefits being offered to employees (eg a reduction in perks) (1)
5. Company is now funding two pension arrangements viz DC scheme of in service employees & DB(closed) scheme of employees & its pensioners. This may have significant strain in the financial of the company due to this twin pension arrangements. Company may believe that introduction DB scheme, may help in managing the financial strain as it provides flexibility to finance. (1.5)
6. Paternalistic interest of the Company to take care of employees after retirement, simplicity in terms of understanding the benefits may also have triggered the Company in restarting the DB scheme. (0.5)
7. Other reasons:
 - There may be a new trend in the market wherein the newer schemes being launched are DB.
 - There could have been changes in regulation, tax laws, administration tools etc that have made running a DB scheme very easy and affordable. (0.5)

[Max 5]

ii) The company, by relaunching the DB Scheme, is exposed to the following financial & non financial risks:

The “Ultimate cost” of providing the pension benefits will be known only when all the pension benefits is paid out & all the members exit the scheme. Since the old DB Scheme is closed 20 years back this true cost can be ascertained within a reasonable future time period. By “reintroducing” the DB scheme, this time period is now further extended & the company is exposed to the risk of “unknown cost” for a longer period. (1)

The accounting principles require the pension cost to be recognized “on accrual” basis through actuarial valuation. Since the old scheme is closed 20 years back, most of the cost relating to the scheme would have been recognized & hence this “accounting cost” is expected to decline in the coming years as the scheme is approaching its end. By reintroducing the DB scheme, the company will be exposed to uncertain, volatile pension cost. (1)

The volatility in pension cost may arise due many financial/economical factors which are not under the control of the company & due to the changes in the demographic profile of the members. Due to this, the financial results of the company will be exposed to the risk of volatility. (1)

If there is a funding arrangement to finance the proposed DB pension, the reintroduction of DB may expose the company, again to the liquidity risk in terms of requiring contributions (& making payouts) at an in opportune time. (1)

The company will be more exposed to the investment related risk due to this reintroduction (1)

The non-financial risk includes:

- DC employees may also demand coverage under DB
- Administrative challenges in managing the 3 different pension arrangements
- Increase in expenses
- Increased exposure to accounting & regulatory compliance (1)

Following aspects need to be considered while framing the scheme with the aim of controlling the financial risk.

1. Company's budget – both initial and annual recurring expense would be critical. The company may want this to be close to the expense being currently incurred towards DC scheme. (0.5)
2. An experience analysis of previous scheme can reveal cause of cost over runs in the previous scheme
 - a. Salary related
 - b. Mortality related
 - c. Inflation related
 - d. Admin related
 - e. Investment related

Depending on the cause of overrun and the likelihood of that factor impacting the current scheme, suitable design should be proposed. (1)

Several benefit design (Accrual rate, definition of salary, pensionable service) should be framed and the cost of providing these should be derived through modelling. (0.5)

The models points chosen should reflect the age/salary/ service profile of members to be covered under the scheme. The parameters used in the modelling should reflect the expected experience of the scheme. (1)

The results of modelling should be compared with the Company's proposed budget for this plan & the design should be modified if the cost is not meeting the budget. (0.5)

The volatility of the pension cost of the proposed design should be assessed against the several parameters such as interest rates, salary increases. annuity rates, longevity, attrition through sensitivity results. (1)

Several shock scenarios needs to be constructed taking into account the company's future business strategy & past strains experienced in the old scheme (eg decrease in interest rates by 20 basis points+ increase in salary 150%+ 25% increase in members) & the impact of such extreme events on the financial of the proposed should be calculated & informed to the company (1)

It should be informed to the management that the "design" of the DB will not alone eliminate the financial risk of the proposed scheme. The importance of monitoring the scheme, the ability & willingness of the management to effect appropriate changes in the scheme will be significant in controlling the cost. (1)

iii) APS governing work on actuarial assessment of pension plans is APS 27

Aspects to be considered while preparing a report on funding projections:

- 1) Introduction – includes purpose of the report-projection of expected future contributions of the company after allowing for employees contribution.
- 2) Basic Information -
 - a) includes date of investigation,
 - b) If existing scheme (closed DB & DC) data is used, summary of data used including any qualifications on the data. If model points are used, approach in selecting the model points.
- 3) General Information –
 - a) Policies governing the report. This report is for company's internal use and not governed by any statute or accounting standard.
 - b) Limitations on use of report by third parties.
 - c) Sources of information and any check that have been applied on the data
 - d) Comment on assumptions and their appropriateness
 - e) How the parameters for the projections have been modified from previous valuation of closed DB scheme to fit the projection purpose.
 - f) Description of approach used for projections.
 - g) In case the proposed scheme is set up on funding basis, expected progression of assets built-up over the future period consistent with the investments strategy assumed in the projections& the investment performance of the asset classes.
 - h) Details of funding policy assumed in the projections.
- 4) Assumptions –
 - a) Need to be consistent and suitable for purpose. Comment should be made on consistency of assumptions
 - b) Complete set of assumptions used in projections of assets and liabilities should be disclosed.
 - c) Specify if the cash-flow pertain to the payment of pensions or purchase of annuities or deferred annuities or any other product. Comment on asset-liability matching in case annuities are purchased and they do not match the liability cash-flows completely.
- 5) Presenting results
 - a) Results need to be presented in pre agreed format that provides the company with the information that it sought at the outset.
 - b) Need to demonstrate variability in cash-flows due to changes in various assumption. This can be done by preparing set of projections at alternate assumptions or by computing the terminal liabilities at various assumptions.
 - c) Need to indicate value of terminal liabilities and assets at the end of 15 years and the funding level at that year.
 - d) Need to indicate that the accounting liability may be materially different from the one disclosed in this report.

[Max 10]

iv) Approach for generating expense projections:

- 1) We need to project the current service cost, pension liabilities & the assets over the next five years.

- 2) The projections should be consistent with the guidelines of AS 15 (R) & professional standards APS 27.
- 3) The benefits used in the projections should be as per the new design chosen by the employer. If it is assumed that there will be no amendments to benefits during the projection period, there will not be any cash flow due to curtailment or settlement.
- 4) The members data available for the projection during the initial years may be limited. Members data relating to old scheme old DB scheme may not be reliable as their age/salary/service profile may be materially different from new members. Employees data (recent recruits) & those DC members who opted for DB may be used to generate model points for such projections. Generating employee data to be used for computing the present value of obligations is important.
- 5) Parameters used in projections such as investment return, salary growth, mortality, attrition rates should be best estimates.
- 6) Discount rate and rate of return on assets can be deduced from the forward rates available as on the date of assessment & it should be set with reference to bond yield and the possible movement of yield over the projection period.
- 7) Market returns used in projection should be consistent with investment strategy proposed by the company. Need to check if any of the investments mature during the period. Reinvestment assumption needs to be in-line with the current market trends.
- 8) Current Service cost, pension liabilities & the assets over the next five years. PUSCR method be used in all such projection of liabilities & CSC.
- 9) The parameters used in projecting CSC, Assets, liabilities needs to be consistent.
- 10) Benefit payout projections should as per the rules of the proposed Scheme.
- 11) Contribution projections should reflect the covenant of the company to finance the scheme & include employees contributions.
- 12) Past service credit (one time) for those who opted for conversion should be consistent with transfer value credit & the market value of the assets transferred.
- 13) If the company require new entrants to allowed in the projections, likely profile of new entrants may be collected from the company.
- 14) Any projection of actuarial gains/losses over the next 5 years will be illustrative in nature as the actual experience will be different from the projected figures. A margin may be included in the projected figures or the impact of changing parameters shall be shown separately from the projection.
- 15) Assuming that there will be no other cash flows, Pension projections for accounting purpose can be derive as sum of CSC, interest cost, less investment return.
- 16) Limitations of the projections if any (lack of data, validity or sensitivity of the parameters) should be disclosed.

(For each point ½ mark; maximum 8 marks)

[Max 8]

v)

- 1) The employee intends to know the level of benefits under both the schemes. This can be portrayed using benefit illustration.
- 2) It is important to make suitable assumptions that take account of employee's individual circumstances (like employee's expected promotional increments based on his/her performance, time to retirement, asset class wherein the funds are invested etc) (1)
- 3) It is to be assumed that he survives upto the NRA. (0.5)
- 4) One should consider the following while preparing projections pertaining to DC scheme –(3)

- a) The assumptions used should be mutually consistent
 - b) An illustration should show separately the pension benefits from existing assets and from future contributions, if any. The recipient can compare both current accrued benefits and ultimate retirement benefits assuming service continues to the illustrated retirement age.
 - c) The member should be made aware that the presented pension figures are illustrations only & the actual pension figures are likely to be different at the time of retirement. The pension benefits are not guaranteed until he reaches the superannuation.
 - d) A sensitivity analysis result can be presented to explain impact of various parameters on the level of benefits.
 - e) May illustrate the variability of the pension benefits for several investment performance & for several changes in the annuity market conditions.
 - f) May indicate options available at the time of retirement with regards to the choice of annuity and the level of benefit under each annuity option.
- 5) One should consider the following while preparing projections pertaining to DB scheme –(3 marks)
- a) The accrued benefits is dependent on the past service credit for transferring the DC accumulations.
 - b) Future Benefits accrual & on Final salary. Hence projection of salary is required.
 - c) The level of benefits can then be projected by applying the benefit formula.
 - d) Scenarios may be presented for various salary growths.
- 6) The assumptions used to project the defined benefit and defined contribution benefits should be consistent. (0.5)
- 7) It should be communicated to the member that the benefits derived under both the scheme are illustrations only. They are not directly comparable as the benefits & the associated risks are materially different. The illustration is not a recommendation to choose a scheme over the other. (1)
- 8) Choice is available to the member in choosing between the two schemes& his decision is not influenced by these illustrations. (0.5)
- 9) Additional information may be provided to understand the difference between defined benefit and defined contribution schemes & the sharing of risks/rewards between the member & the company. (0.5)

[Max 10]

vi)

- 1) The proposal if accepted, will result in the company offering a guarantee on interest rate and hence principles used to value the cost of interest rate guarantee on the exempt provident fund would become applicable. (1)
- 2) The liability can be measured by any of the three ways given in GN 29: (0.5)
 - a) Deterministic approach : (0.5 marks + 1 mark description)
 - b) Option pricing approach (0.5 marks + 1 mark description)
 - c) Stochastic approach (0.5 marks + 1 mark description)
- 3) Difference in disclosures – the scheme in current form is a pure DC scheme and the contributions payable are expensed every period. There is no need for actuarial valuation and there are no specific disclosures. The proposal if accepted would convert this scheme to a DB scheme and the disclosures pertaining to post -employment benefits would become applicable. (1)

[Max 7]

[50 Marks]

Solution 2:

i)

1. Discount rate assumption is the interest rate used to calculate the net present value of the future expected cash-flows while performing the actuarial valuation of the Defined Benefit plans. As per para 83 of IND AS19 reporting standards, it is the rate used to discount post-employment benefit obligations (both funded and unfunded) plans. (0.5)
2. The accounting standards prescribe that this assumption shall be determined by reference to market yields at the end of the reporting period on government bonds. However, subsidiaries, associates, joint ventures, and branches domiciled outside India shall discount post-employment benefit obligations arising on account of post employment benefit plans using the rate determined by reference to market yields at the end of the reporting period on high quality corporate bonds. (1)
3. In case, such subsidiaries, associates, joint ventures, and branches are domiciled in countries where there is no deep market in such bonds, the market yields (at the end of the reporting period) on government bonds of that country shall be used. (0.5)
4. Most importantly, the accounting standards state that the currency and term of the government bonds or corporate bonds shall be consistent with the currency and estimated term of the post-employment benefit obligations. (1)
5. Accordingly, for this large IT company which has subsidiaries across the globe, the actuary has set the discount rate assumption with respect to the available high quality corporate/government bond yields of that particular country. (0.5)
6. Since the interest rates and market economy differ across countries, the range of discount rate assumption would be different across countries. (0.5)
7. Discount rate should also be consistent with salary growth assumption. If a common discount rate assumption is considered across all countries, while the market trends and inflation rate, salary growth vary across countries, there will be inconsistencies between discount rate & the salary growth leading to inappropriate results. For instance, if Indian government bond yields of about 7% p.a. is used in an actuarial valuation of a developed country's plan where the salary increases are 3% p.a., the liability would be underestimated as the actual interest rate of the country would be in the range of 2 to 4%. (1)
8. The discount rate assumption should include consideration of the short and long term investment strategy for the scheme plan as well. (0.5)
9. Further, discount rate should consider the estimated term of the liability which will depend on the demography like age profile, retirement age, etc. and demographic assumptions like mortality rate, attrition rate, disability rate, leave availment rate, etc. These are likely to differ across plans around the world and hence the discount rate assumption may vary across countries for the same Company. (1)
10. For valuation of schemes, where there are some risks specific to the country, it is not unusual to implicitly allow for the risk through adjustment to the market derived discount rate. (0.5)

[Max 5]

ii)

Key considerations for using country B's mortality tables for Country A –

1. Mortality rates should ideally reflect the expected experience of the scheme. It should also reflect the general trend in the mortality of the particular country & allow for the future improvement in the mortality. (0.5)

2. If the scheme is very large, the mortality assumptions may be derived from the scheme experience itself, whereas for a smaller scheme, the mortality experience is likely to be of limited relevance and hence a proxy may have to be used. In such cases, it is appropriate and prudent to take a bigger margin. (0.5)
3. Since Country B does not have its own published mortality tables and since any single scheme is likely to be not large enough to have its own credible mortality experience, mortality rates of another country could be used as a starting point. (0.5)
4. Country B's mortality table will be appropriate provided it is relevant & the demographic profile of B matches with the profile of country B.
5. The mortality table of country B is to be modified taking into consideration several life style factors of country A such as diet, hygiene, medical care available along with the genetics of the population. & further modified to fit the demographic profile of the scheme. (1)
6. Such modification to the table is done by rating up/down (eg rating up by 2 ages) the mortality tables at each age is expressed as a proportion (eg 125%) (0.5)
7. The mortality parameters used in the valuation would be monitored for its relevance on a continuous basis through the study of mortality experience of the scheme and adjustment to the parameters is done to reflect the expected experience. So long as the adjusted mortality factors derived from mortality table of country B reflect the expected experience of the scheme it is appropriate to use it as a base table. (0.5)

Mortality improvements may be factored in the following ways:-

8. An age rating might be applied to the standard table or even a scaling factor of say 95% could be used. It is easier to make the adjustments with a scaling factor, preserving the age related shape of the underlying table. (1)
9. Further, the base mortality assumption should be updated to account for the time elapsed between the exposure period of the underlying base table data and the date on which the tables are used (0.5)
10. Projecting the adjusted base tables each year into the future by the application of mortality improvement factors. (0.5)
11. There are various ways of determining future rates of mortality improvement – extrapolate projection methods, based on projecting historical trends and uncertainty in mortality. However, these methods may overstate the extent of improvement as the improvement in mortality is expected to be at a slower rate than experienced before. (0.5)
12. Stochastic approaches using the Lee Carter method and P-spline method can also be used where a range of future possible scenarios could be allowed for. (0.5)
13. Cohort effect may also be considered while applying mortality improvements, i.e. strong patterns exhibited by year of birth. (0.5)

[Max 5]

iii) The variations in liability over the year could be on account of the following reasons –

1. Change in Discount rate assumption:
 - a. With the change in discount rate assumption from 6% to 7%, the liability is expected to reduce. Since this assumption is used to find the present value of expected future cashflows, higher the discount rate, lower would be the liability. (0.5)

- b. Given the duration of liability is 6 years, the increase in discount rate by 1% would lead to an approximate high level impact of 5% to 6%. It can be calculated by $(1.06/1.07)^6 - 1$. (0.5)
2. Change in salary escalation rate assumption:
- a. With the increase in salary escalation rate from 8% to 9%, the liability is expected to increase as the benefit is linked to final basic salary. (0.5)
- b. Hence in every future year for 6 years, the salary increase assumption has increased by 1% leading to an increase in liability of about 6%. It can be approximately worked out by $(1.09/1.08)^6 - 1$. (0.5)
3. Change in attrition rate assumption:
- a. The leave encashment benefit is payable on separation, irrespective of when the separation happens. Hence, the change in attrition rate may not impact the liability as significantly as the change in discount rate and salary escalation rate (0.5)
- b. Since the salary escalation rate is higher than the discount rate, the increase in attrition rate assumption would imply that the larger benefit is paid sooner. (0.5)
- c. The combined effect of the two factors reduces the duration of liability and the impact of change in attrition rate will reduce the liability. It may then be indirectly calculated as $((1 + \text{salary escalation rate}) / (1 + \text{discount rate}))^{\text{new duration}} - ((1 + \text{salary escalation rate}) / (1 + \text{discount rate}))^{\text{old duration}}$. (0.5)
4. Change in mortality rate assumption:
- a. The in-service / pre-retirement mortality rates tend to be less significant as they are very small in proportion (0.5)
- b. The change in mortality table seems to be an improvement in mortality rates which would lead to reduction in rates and hence deferment of leave encashment benefit payout (0.5)
- c. This change would lead to a small increase in the liability as the salary escalation rate is higher than the discount rate. Accordingly, the new duration would be higher than the old duration and basis the same formula as provided in point 3c for change in attrition rate, the result here would be positive, showing an increase in the liability. (0.5)
5. Other possible reasons for the variation may be as below –
- a. The increase in liability from 2021 to 2022 would be on account of one year's additional expense (0.5)
- b. The variation could be attributable to change in demography of members valued – in terms of new entrants and leavers. There might be employees transferred in and out of this subsidiary to other subsidiary leading to the volatility (0.5)
- c. Change in salary not in line with the assumption would also add to the variation (0.5)
- d. Change in leave balances not in line with the assumption to estimate the current service cost would also add to the variation (0.5)
- e. Any change to the leave encashment scheme rules would lead to variation with respect to maximum accumulation rate, yearly entitlement, etc. would lead to variation (0.5)
- f. Errors in data used for valuation (0.5)
- g. Change in definition of salary on account of labour codes (0.5)

[Max 8]

iv) Valuation of non-vesting leaves:

- a. As per para 15 of IND AS19, the accumulating paid absences are those which are carried forward and can be used in future periods if the current year's entitlement is not used in full. These accumulating paid absences may be either vesting, i.e. when the employees are entitled to cash payment for unused entitlement on leaving the entity) or non-vesting (when employees are not entitled to a cash payment for unused entitlement on leaving). (1)
- b. An obligation arises as employees render service that increases their entitlement to future paid absences. The obligation exists, and is recognized, even if the paid absences are non-vesting, although the possibility that employees may leave before they use an accumulated non-vesting entitlement affects the measurement of that obligation. (0.5)
- c. Basis this guidance under IND AS19 and a similar guidance in para 14 of AS15 (rev) accounting standards, this accumulating leave plan needs to be valued actuarial to account for the cost of absence. (0.5)
- d. This valuation approach generally assumes a Last In First Out (LIFO) basis of leave utilization where the leaves that will be credited in future will be utilized first and then further leaves will be utilized out of the closing leave balance being currently valued basis an assumption called the availment ratio assumption. This is in line with the example shared in IND AS19 illustrating paragraphs 16 and 17. (1)
- e. In summary, leave availment occurs when employee is enjoying the benefit of being absent from service because of services provided in earlier periods, where no additional amount is paid but when employee enjoys the leave from the service still he/she is paid full salary, reason being the accumulated leaves from rendering services in prior years. (0.5)
- f. Where the rules of an enterprise allow the leaves to be carried forward upto the time of separation, liability should be recorded for the cost of the entitlement. This should be estimated having regard to the probability of the employee availing the leave in future periods. (0.5)
- g. The measurement of availment liability would need to account for below points – (0.5)
- Credit of leaves and maximum accumulation limit of 90 days
 - Cost to Company (CTC) or gross salary and
 - Probability of leave being availed (leave availment ratio)
- h. The obligation measurement would be based on projected availment of leaves accumulated as on the date of valuation. Thus, availment ratio of leaves on yearly basis becomes a critical demographic assumption (0.5)
- i. Availment ratio considers the number of leaves that employees avail over and above the yearly entitlement, i.e. excess leaves availed in a year divided by the total leave balance at the beginning of the year (1)
- j. The above ratio should be found out for past 3 to 4 years and the average of the same can be considered as an assumption for the leave availment valuation. Further, market trends may also be considered while setting this assumption. (0.5)
- k. Since this valuation is carried out to compute the cost to the company on account of absence of employees for days longer than the yearly entitlement, the salary basis considered is gross or cost to company (CTC) of the employees. This is because if the Company has to arrange for a replacement of an employee, per day's cost would be equivalent to the per day's CTC of the absent employee and not basic salary. (1)
- l. Future expected cost of availment is projected as accumulated leave days times CTC divided by number of working days to arrive at total cost of leaves accumulated so far. (0.5)

- m. This is projected till retirement considering the increase in CTC basis the salary escalation rate assumption and every year, this projected benefit is multiplied by the availment ratio of say 2% or 5% as that is the proportion of utilized leaves whose cost has to be accounted. (0.5)
- n. Other decrements like attrition rate, mortality rate, retirement are also applied like other valuations along with depletion of leaves on account of availment ratio (0.5)
- o. These projected cashflows are then discounted to date of valuation using the discount rate assumption to arrive at the availment liability. This plan is treated as other long term benefit under IND AS19 accounting standards. (0.5)

[Max 10]

v) Factors to be considered while validating the reports –

- a) Identify if there has been any material membership movement or salary increases post the date of valuation, 31st Dec 2021. If so, these changes should be accounted through a roll-forward or update in membership. (0.5)
- b) Validate the assumptions used for the calculation of actuarial liabilities – if the financial and demographic assumptions are in line with the market (0.5)
- c) Check if the Gratuity and Long Service Award benefit rules valued are in line with the communicated set of rules. Also if the rules are in line with the statute. (0.5)
- d) Validate the membership data against the set of employees being transferred. Also if the membership statistics valued in both the reports are similar (0.5)
- e) Broad checks may be performed using the membership statistics to see if the liability calculation is in line with the reported liabilities (0.5)
- f) If the schemes are funded and level of funding can be validated against the recent fund statements (0.5)

Transfer Approach:

Pros for transferring the past service benefit – employee’s perspective:

- a) If benefit is transferred, employees would retain final salary linkage on leaving the new company for the accrued service in the seller company which would lead to higher Gratuity benefit subsequently. (0.5)
- b) For employees who are not vested for Gratuity benefit will be able to carry forward the years of service served to the seller company (0.5)
- c) No additional taxes will have to be payable by employees if the accrued benefit is transferred and paid on separation. In case Gratuity settlement is made for an unvested employee as Exgratia benefit, taxes will be applicable. (0.5)
- d) No expected grievances as employees will not be worse off from both the schemes’ perspective (0.5)
- e) With the expected labour reforms in India, pensionable salary for Gratuity benefit is expected to increase and its advantage will be passed on to employees under this option (0.5)

Cons for transferring the past service benefit – employee’s perspective:

- a) Opportunity of immediate upfront benefit is lost (0.5)
- b) If the employees are not happy with the acquisition, they may want to separate from the company. In such a case, they will lose out on benefit if not vested and not compensated on account of the transfer (0.5)

- c) If the buyer Company has different set of Gratuity and Long Service Award rules, it may be difficult to keep track of accrued benefit which would be on different rules. (0.5)
- d) Salary increases in the buyer company may be lower than the seller company, hence employees may prefer upfront cash instead of retaining final salary linkage (0.5)

Pros for settling the benefit – employee’s perspective:

- a) Upfront cash payout would be received (0.5)
- b) For Long Service Award, a lumpsum settlement may be made for employees who have completed say 8 years of service basis an actuarial calculation with a view to discontinue the benefit. In such a case, it would be a gain to the employee if the intention was to leave before being eligible for the next service award at 10 years (0.5)
- c) For employees who are not happy with acquisition and intention to leave and are unvested for Gratuity, this would be a gain to receive Gratuity benefit before 5 years of service as an Exgratia benefit (0.5)
- d) Employees would be able to start their benefit kitty afresh in the buyer Company with no confusion if the scheme rules are different (0.5)

Cons for settling the benefit – employee’s perspective:

- a. Exgratia benefit (Gratuity paid to unvested employees) would be taxable as against the tax free Gratuity benefit that might have been paid on separation upto statutory limit of INR 2 million (0.5)
- b. The settlement may not take into account the increase in Gratuity benefit on account of upcoming labour reforms, specifically the Code on Wages thus losing out financially (0.5)
- c. The lumpsum Long Service Award calculation for upfront payout may be computed actuarially, accounting for certain attrition rate probability. If the employee intends to stay with the buyer company, this settlement amount is expected to be on a lower side. (0.5)

Pros for transferring the liabilities – buyer Company’s perspective:

- a. This practice would be safe and in line with market, so not expected to have any legal implications (0.5)
- b. Expected employee satisfaction leading to less attrition (0.5)

Cons for transferring the liabilities – buyer Company’s perspective:

- a. Administration hassle of managing prior set of benefits if the scheme rules differ (0.5)
- b. Risk of taking on liability – if it is undervalued or if there is an error in the valuation (0.5)
- c. Current set of employees in the buyer company may compare with the benefit of acquired employees if their benefits are not as generous. (0.5)
- d. Employee communication / system changes may be complicated (0.5)

Pros for settling the benefits – buyer Company’s perspective:

- a. No expected administration hassle as Company need not manage two sets of benefits. It will be a new, fresh start for the buyer company. (0.5)
- b. Company may gain if past Gratuity benefits are settled as upcoming labour reforms are expected to increase the cost of accrued Gratuity benefits. (0.5)
- c. Current set of employees will not have any benefits to compare against and hence no dissatisfaction (0.5)

Cons for settling the benefits – buyer Company’s perspective:

- a. Immediate cash outgo to employees could lead to higher opportunity cost (0.5)
- b. Legal implications of how the benefit amounts were computed (0.5)
- c. May lead to dissatisfaction among employees if settlement is not in line with their expectations (0.5)

[Max 12]

vi)

- a. Projected Benefit Obligation: This is the past service liability including future salary growth. It is effectively the actuarial liability on the Projected Unit (or Attained Age) method and may also include an allowance for the proportion of any non-accruing (which is not based on past service) built upto date.

This is the same as Defined Benefit Obligation under IND AS19 accounting standards. (0.5)

- b. Accumulated Benefit Obligation: This is the past service liability without the future salary growth. It is effectively the actuarial liability on the Current Unit method. (0.5)
- c. Net Periodic Pension Cost (including the components forming part): (3)

This is the P&L charge under ASC 715 and consists of the below elements, some of which are common under the P&L of IND AS19 accounting standards

- Service Cost – the additional cost on account of one additional year of service is accounted for under current service cost. This cost makes allowance for the proportion of non-accruing benefits also (including non-service linked benefits like death in service lumpsums) which have deemed to have accrued over the year. Under IND AS19, this component includes past service cost also (apart from current service cost) which is the cost arising on past service due to plan amendment.
- Interest Cost – This cost reflects the increase in the liabilities over the year due to interest only. It should allow for any net benefit outgo along with its timing. The interest rate used for calculation of this component is the discount rate and is the same under IND AS19 accounting standards.
- Expected Return on Assets – the investment return expected over the year for a funded plan is a credit to the P&L during the year
- Amortisation –
 - Under ASC715, the actuarial gains and losses and the past service costs are spread out and only a proportion of the same are recognized in the P&L for the year.
 - Under IND AS19, actuarial gains and losses are recognized through Other Comprehensive Income or immediately recognized through P&L depending on the nature of the benefit while the entire past service cost is immediately recognized through P&L
- Together these are called the Net Periodic Pension Cost that is charged to the P&L Account. Additional costs that can arise in special circumstances are settlements or curtailments.

- d. Accumulated Other Comprehensive Income (AOCI): (2)
 - As the profit and loss or net periodic pension cost does not include the gains / losses and past service costs in full, the remaining credit or cost is charged to a separate statement called “other comprehensive income”.

- These items adjust a component of the reserves and equity section of the balance sheet and ensures that balance sheet adds up.
 - Under IND AS19, “other comprehensive income” consists of all the actuarial gains and losses of post employment benefit schemes which do not get amortized in P&L at any point of time.
- e. Approach of recognizing the actuarial gains and losses: (2)
- Under ASC 715, actuarial gains and losses could follow a 10% corridor approach whereby only cumulative gains or losses which are greater than the corridor have to be amortised immediately.
 - The corridor is based on 10% of the greater of the liability and scheme assets at the beginning of accounting period. Any gains and losses which are not amortized are carried forward to AOCI.
 - The corridor approach leads to the minimum amount of gains and losses to be recognized. Additional gains and losses can be recognized if considered appropriate, however this approach may reduce the volatility of the P&L as it delays recognition of small surpluses or deficits which turn out to be transient only
 - There is a choice of amortization methods here – a straight line method may also be used for spreading the gains and losses, i.e. over the estimated term of liability for the active members. Where most members are inactive members, it may be appropriate to amortize over the life expectancy of the inactive members instead of remaining service period.
 - Under IND AS19, actuarial gains and losses are recognized immediately either through Other Comprehensive Income or through P&L depending on the nature of benefit being valued. However, there is no amortization involved.
- f. Differences in setting assumptions: (2)
- Discount rate: Under ASC 715, discount rate assumption should be set basis the high quality corporate bond yields available at the balance sheet date corresponding to the term of liability while under IND AS19, it should be set basis the government bond yields.
 - Expected Rate of return: This assumption reflects the long term return on assets basis the average rate of future earnings expected on the fund, taking the returns likely to be earned into account along with current and future investment policy.
Under IND AS19, the rate used for calculating the expected return on assets is the same as discount rate.

[Max 10]
[50 Marks]
