INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

23rd March 2021

Subject SA4 – Pensions and Other Benefits

Time allowed: 3 Hours 30 Minutes (14.30 - 18.00 Hours)

Total Marks: 100

INSTRUCTIONS TO THE CANDIDATES

1. ***Please read the instructions to examinees sent along with hall ticket carefully and follow without exception.***

2. ***The answers are expected to be India Specific application for the syllabus and corresponding core reading. However, substantially the core reading material is still taken from material supplied by Actuarial Education Company which is meant for UK Fellowship examination. The core reading also contains some material which is India Specific, mostly the IRDA regulation. In view of this, it should be noted that focal point of answers is expected to be India Specific application. However, if application specific to any other country is quoted in the answer the candidate should answer the question with reference to Indian environment.***

3. ***Mark allocations are shown in brackets.***

Q. 1) A large manufacturing Company in India (Company X) offered occupational inflation linked defined benefit (DB) pension scheme (Scheme X) to its employees till few years back which is now closed to new entrants. The Company introduced for its new employees a defined contribution (DC) scheme effected through NPS. In this DC scheme, individual employee's contribution together with the employer contribution is credited to the member's NPS account. The funding level of the closed DB scheme is 100% as per the last valuation.

Company X has recently acquired a medium sized private company (Company Y) and the merger of these two companies will be taking place within 12 months. The company Y offers a DB pension scheme (Scheme Y) to its employees whose benefits and eligibility conditions are quite different from those of Scheme X.

Company X is considering the merger of Scheme Y in to Scheme X and has engaged you as the consultant actuary to look into the financials of Scheme Y and suggest the ways of moving forward.

i) State the objectives of Company X to look into the financial aspects of pension scheme Y. (3)

ii) Discuss the key areas you will look into to form an opinion on the financial aspects of Scheme Y. (8)

The profile of active members of scheme Y with last 5 years' data is given below:

Year	**2016**	**2017**	**2018**	**2019**	**2020**
Average age	46	44	41	40	43
Number of members	1800	1700	1500	1400	2000
Average pensionable salary per month (Rs.)	28000	30000	32000	35000	42000
Value of obligations (in million rupees)	1234.17	1174.84	1140.53	1096.44	1250.80
Value of scheme funds (in million rupees)	1172.46	1080.85	1060.69	964.87	937.85
Annual pension cost (in million rupees)	160.54	134.32	81.33	70.63	192.24
Actuarial losses (in million rupees)	19.26	33.58	24.40	24.72	76.90
Funding status	95%	92%	93%	88%	75%
Actuarial losses as a % of pension cost	12%	25%	30%	35%	40%

iii) Define Actuarial gains/losses and state how they are treated for the purpose of accounting as per IND AS19. (3)

iv)

a) Discuss the significance of substantial actuarial gains/losses of the pension scheme Y on the financials of company Y. (5)

b) Discuss the potential factors contributing to the actuarial gains/losses of a pension scheme. (14)

It has been decided to assess the realistic picture of the pension liabilities of scheme Y as a part of determining the purchase price of company Y.

v) Discuss how you will assess the realistic value of pension benefit liabilities of scheme Y for this purpose. (7)

vi)

a) Describe the concerns/interests of different parties connected with the merger of scheme Y with scheme X (8)

b) List the alternatives to the merger of these two schemes (2)

It may be noted that the other employee benefits such as EPF, gratuity, leave encashment etc. are also provided by the companies but the same have not been considered in the question.

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Q. 2) A country with a large working population has the following statutory plans:

- **Central Provident Fund** which is a compulsory, Government-managed defined contribution retirement savings wherein employees contribute a portion of their salaries to the provident fund and employers match that contribution on behalf of their employees.

  a) The money in the fund is then held and managed by the Government, and is payable on exit from employment subject to fulfilling certain conditions. The current contribution is @12% of Basic Pay + Dearness Allowance (DA) each by the employer and the employee.

  b) The plan also allows the employer to restrict the contribution to 12% of K 20,000 monthly wages, where K is the currency of that country. However, the company can apply the deduction to the full basic + DA.

  c) The plan is mandatory i. e. employees cannot opt out of the plan.

- **Gratuity** which is a defined benefit final salary lumpsum payable on exit from the company

  a) Accrual is @15/30 of last drawn basic + DA for each year of service

  b) A vesting criterion of 5 years; no vesting applicable on death or disability

  c) Maximum benefit that is tax free is K 2,500,000

  d) Employers can provide a more generous benefit to their employees

There is no state social security in the country.

Currently, the wage structure consists of Basic, DA, House Rent Allowance (HRA), Bonus, Commissions and other allowances that are uniformly paid to all employees. All these components together comprise of Total Cash.

There is no uniformity of the wage structure across industries and within an industry among companies. Even the basic as a percentage of Total Cash differs from company to company ranging from 20% to 60%.

The Government of the country is considering rationalizing and streamlining its labour laws relating to wage definition with the intention of ensuring better contribution towards Employee Retirement Plans.

The proposal of the Government is to introduce a legislation making basic pay to be a minimum 50% of Total Cash. The proposed effective date is 1st July 2021.

You are an actuary and have been invited by the Government to help it understand the financial implications of such a legislation both from the employer and employee as well as other stakeholders' perspective with regard to Provident Fund and Gratuity benefits. It is required to support the Government during discussions which are expected to take place shortly with the various stakeholders.

i) List down the broad aspects you would cover as a part of the initial presentation to the Government. (11)

A multinational company X has two entities in that country. Both have different legacy structures:

- one Entity A has a wage structure with basic pay as 30% of the Total Cash and has a Gratuity Benefit as 15/30 of last drawn salary for each year of service but without a limit

- second Entity B has a wage structure with basic pay as 45% of the Total Cash and has a Gratuity Benefit as 15/30 of last drawn salary for each year of service subject to a maximum limit of K 2,500,000

The CFO of the multinational company has recently stated in a meeting that the impact of the proposed legislation on the financials of companies would be too high. However, as per some stakeholders, gratuity outgo in a year is not significant so the impact may not be material in the short term. In view of such conflicting opinions, the CFO has approached you to help understand the treatment of the impact and the ways in which it can be reported.

ii) What would your response be with regard to gratuity benefit drawing from the Accounting Standards and the difference in impact for Entity A as compared to Entity B. Further, outline the broad points on how the impact would be reported and also mention the rationale for it. You may assume that the Accounting Standards applicable in that country are similar to IND AS19. (11)

Further, the company has not given any salary increase during 2020 due to Covid 19 impact. The CFO feels that the valuing actuary need not take salary increase into consideration and remarks "It is realistic to assume that there would be no increments and it would also help us manage the costs".

iii) Comment on the above statement drawing from the accounting standards. (2)

The country does not mandate any funding for the gratuity plan. You have been asked by the CFO to prepare a note on funding of Defined Benefit schemes.

iv) Outline the key areas you would cover in the note. (6)

v) What do you understand by company covenant for a Defined Benefit scheme? (2)

vi) How would the above proposed change in wage definition affect the funded position of the scheme? (2)

One of the senior employees of the company remarks that they can just go ahead and buy an insurance policy and there is no need to set up a trust. He has seen it with other companies as a practice in the country.

vii) Draft a response to this remark highlighting the advantages of a Trust. (3)

viii) What are the aspects that the company needs to consider while choosing between a Self-managed fund vs. funding with an insurance company? (5)

ix) What is liability driven investment in the context of a Defined Benefit Plan? (8)

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