INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

November 2026

SA4 - Pensions and Other Benefits

Time allowed: 3 Hours 15 Minutes

Total Marks: 100

Q.1) Company X, medium in size, in manufacturing business is a listed, PAN India company. Besides providing statutory benefits such as EPF, Gratuity, it has recently introduced (three years back) a defined (DB) pension scheme to its employees, with the objective of encouraging long term association with the company. The features of the scheme are given as under:

- Membership voluntary
- Members contribute 5% of basic pay for the benefit to a pooled fund but individual accounts are maintained
- Balance cost is met by Company X. It pays its contribution to the pooled fund as & when the pay out arises.
- On retirement members get 50% of final basic pay if they meet the "service based criteria" of the company.
- On early exit, members get contributions returned with interest @5%
- The fund is managed internally by the company.
- There is no formal funding or investment policy for managing the funds.
- No actuarial valuation has been conducted sofar

A brief profile about the membership of the scheme is as under:

Age band	Number of employees	Proportion exercised	Category	Number	Proportion exercised
<30	12000	15%	Executives	500	90%
30-40	8000	20%	Middle level officers	1500	70%
40-50	5000	50%	Administrative staff	10000	30%
50-60	2000	80%	Field staff	15000	20%
Total	**27000**	**28%**	**Total**	**27000**	**28%**

Company X is concerned that the scheme is not meeting its objective as the membership enrollment of the scheme is not showing any significant growth. The Chief Financial officer (CFO) of the Company X also has expressed concern about the arrangement & its impact on the financials of the company.

i) Discuss the features of the pension arrangement causing lower enrollment (from the point of view of the company) and its financial impact concerning the CFO. Also state how its features & management could be modified to address their concerns. **[12]**

Last year, following the internal discussions in the Board, existing employees were given one time final option time to join the scheme within 30 days. It has also been decided that all future employees will join the scheme compulsorily. By this exercise the membership of the scheme has increased to 90%.

It has also been decided by the Company X to establish an independent approved Trust to manage the scheme. The trustees are engaging you, as consultant pension actuary, to assess the financial conditions of the scheme. A brief profile about the scheme as given below is provided to the Trustees in this regard.

Beneficiary	Number	Average age	Past service	Average Monthly Basic pay(for pensions)in rupees	Average Monthly pension (in rupees)
*Pensioner	300	60	NA	NA	58000
Inservice members					
Executives	500	52	20	200000	
Middle level officers	1500	45	16	100000	
Administrative staff	9000	35	12	75000	
Field staff	13000	30	8	50000	
Total	**24300**	**36**			
* for these retired members, pension payment has not started					

ii)

a) As a consultant actuary, discuss the process for assessing the financial status of the scheme. **[7]**

The Trustees are also in the process of drafting the Trust deed & scheme rules in consultation with the company X.

b) List the contents of the scheme rules to be incorporated. **[3]**

After careful consideration of the profile of the scheme, the Trust has set the funding objective as "100% funding on buy out basis". Based on this, they are in discussion with company X about financing of the scheme. They use Attained Age method for determining the liability & contribution requirements of the scheme. But company X is of the view, that the financing based on "current unit method" will be appropriate.

iii) Compare the appropriateness of the two different funding approaches & how they can be balanced. Also comment on the impact of these two approaches on the "cost" as reflected in company accounts as per Ind AS19. **[18]**

The company is already having a scheme of contributory, medical scheme to cover the hospitalization of existing employees. As a paternalistic gesture, Company X is also considering to introduce a scheme of medical benefits to retired employees. It proposes to establish a 'post retirement medical fund" for the purpose.

iv) State the challenges of introducing & managing the scheme of the retired employees & state how these challenges can be addressed. **[10]**

[50 Marks]

Q.2) A Research is being conducted by a voluntary organisation "X " on the Indian pension environment. It is currently examining the two pension schemes sponsored by the Government of India viz the **Unified Pension Scheme (UPS)** and the **Employees' Pension Scheme, 1995 (EPS-1995)**. The organisation has approached you as a Consulting Actuary in the retirement benefits area to guide its ongoing research project. Initially, it wants to understand the benefit structures under these two schemes i.e UPS and EPS-1995.

i) Prepare a comparison summary of the pension benefits available to a member exiting the schemes by early retirement or resignation under these two schemes. **[6]**

The research initially has observed that the pension benefits payable on Voluntary Retirement under the Unified Pension Scheme (UPS) needs enhancement to improve the scheme's attractiveness.

ii) As a Consulting Actuary, you have been asked to comment & guide

a) On the need for providing such enhancement options. **[2]**

b) identifying at least four possible options for improving the voluntary retirement pension benefits under UPS and explain their suitability. **[4]**

c) analysing the challenges to the Government in implementing these options for scheme subscribers. **[4]**

The researcher is of the view that UPS should have "portability" of pensions for its members when they leave UPS and a Transfer Value has to be estimated in respect of the accrued pension for the members exiting the scheme to facilitate such portability. The organisation X seeks your opinion on how such transfer values should be set.

iii) Explain why **a Transfer Value** is necessary in such cases and discuss the key factors you would consider on determining the appropriate Transfer Value for UPS. **[12]**

A large company Y is providing Gratuity & Leave encashment Benefits to its employees. The benefits are unfunded & provision is being kept in the books of accounts. It has engaged you as a consultant actuary to project the payouts for the next 10 years relating to these two schemes to plan the company's cash flow management.

iv) Describe in detail the data, assumptions and methodology used for estimating the Cashflows related to payouts from Gratuity and Leave Encashment benefits for the next ten years. **[12]**

Company Y intends to evaluate the financial impact of the revised definition of *wages* under the Social Security Code, 2020 on the gratuity benefits payable to its employees. For this purpose, the company has provided sample data for three employees.

Row Name	Wage Components	Employee A	Employee B	Employee C
A	Basic	75,000	23,000	30,000
B	DA	15,000	2,000	2,000
C	HRA	40,000	18,000	0
D	Conveyance Allowance	10,000	8,000	8,000
E	In-house accommodation	0	0	24000
F	Retaining Allowance	0	2,000	1,000
G	Special Allowance	30,000	19,000	12,000
H	Contribution to PF	1,800	1,800	1,800
I	Value of Food Coupons	9,000	7,000	4,000

All three employees have completed **10 years of past service as on 31st March 2026**, and their monthly salaries are recorded as of the same date.

v) Calculate the accrued gratuity benefits for each of the three employees as at 31st March 2026, (a) based on the earlier definition of wages as per Gratuity Act, and (b) incorporating the changes introduced under the Social Security Code, 2020. **[10]**

[50 Marks]

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