



Institute of Actuaries of India

Subject

**SP4 – Pensions and Other Benefits
Specialist Principles**

For 2020 Examinations

SP4 – Pensions and Other Benefits Specialist Principles

Aim

The aim of the Pension and other benefits Principles subject is to instil in candidates the ability to apply:

- the mathematical and economic techniques; and
- the principles of actuarial planning and control

needed for the financial management of pensions and other benefits.

Competences

On successful completion of this subject, a student will be able to:

1. Understand the main principles and techniques of actuarial management and control that are relevant to benefit provision.
2. Apply these principles to simple situations within the context of pensions and other benefits.
3. Analyse hypothetical scenarios, including using judgement to assess the implications of possible actions and to develop appropriate proposals or recommendations relating to the management of benefit arrangements.

Links to other subjects

CM1 – Actuarial Mathematics 1

CP1 – Actuarial Practice

SA4 – Pensions and Other Benefits Advanced

Syllabus topics

1. Pension provision and general business environment (20%).
2. Scheme design and financing (20%).
3. Managing schemes and risks (20%).
4. Models, valuations and setting assumptions (30%).
5. Monitoring experience and the Control Cycle (10%).

These weightings are indicative of the approximate balance of the assessment of this subject between the main syllabus topics, averaged over a number of examination sessions.

The weightings also have a correspondence with the amount of learning material underlying each syllabus topic. However, this will also reflect aspects such as:

- The relative complexity of each topic, and hence the amount of explanation and support required for it.
- The need to provide thorough foundation understanding on which to build the other objectives.
- The extent of prior knowledge which is expected.
- The degree to which each topic area is more knowledge or application based.

Skill levels

The use of a specific command verb within a syllabus objective does not indicate that this is the only form of question which can be asked on the topic covered by that objective. The Examiners may ask a question on any syllabus topic using any of the agreed command verbs, as are defined in the document 'Command verbs used in the Associate and Fellowship written examinations'.

Questions may be set at any skill level: Knowledge (demonstration of a detailed knowledge and understanding of the topic), Application (demonstration of an ability to apply the principles underlying the topic within a given context) and Higher Order (demonstration of an ability to perform deeper analysis and assessment of situations, including forming judgements, taking into account different points of view, comparing and contrasting situations, suggesting possible solutions and actions and making recommendations).

In the SP subjects, the approximate split of assessment across these three skill types is 25% Knowledge, 50% Application and 25% Higher Order Skills.

Detailed syllabus objectives

0 Introduction

0.1 Define the main terms used in the provision of benefits.

1 Pension provision and the general business environment (20%)

1.1 Describe the roles that interested parties may play, and responsibilities they may have, in the provision of benefits, including:

- the State and statutory bodies;
- employers or groups of employers;
- trustees or scheme managers;
- financial advisers;and
- individuals or groups of individuals.

1.2 Compare the provision of benefits from the State, employers in the public and private sector and individuals.

1.3 Discuss the implications, for the parties in 1.1, of the environment in which benefits are provided, including:

- different presentation and reporting of benefits and contributions;
- regulation and taxation; and
- any professional guidance for actuaries or other professionals.

1.4 Discuss the issues surrounding sponsor covenant in terms of:

- measurement; and
- integration with funding and investment.

2 Scheme design and financing (20%)

2.1 Describe the different ways in which providers may be able to finance the benefits to be provided, including:

- the timing of contributions (relative to when the benefits are due to be paid);
- the forms and characteristics of investment that may be available (if benefits are funded); and
- financial instruments, including contingent assets, which may be used to back benefit promises.

- 2.2 Discuss the factors to consider in determining a suitable design for a pension scheme, or other benefits such as social security benefits, including:
- type of pension scheme e.g. defined benefit, defined contribution, risk-sharing;
 - the governance requirements;
 - the level and form of benefits and/or contributions;
 - the method of financing the benefits;
 - how risk is shared between parties; and
 - the choice of assets (when benefits are to be funded).

3 Managing schemes and risks (20%)

- 3.1 Describe the risks affecting:
- the level and incidence of benefits;
 - the level and incidence of contributions;
 - the level and incidence of return on assets;
 - the extent to which assets are exhausted during a member's lifetime; and
 - the overall security of benefits.
- 3.2 Discuss the issues taken into account in producing information to meet accounting standards, including:
- the objectives;
 - the disclosure requirements; and
 - the calculations of cost of benefit provision.
- 3.3 Discuss the main factors that should be taken into account in setting appropriate terms and consent requirements for member options, taking into account the risk and reward for all relevant parties.
- 3.4 Discuss the factors taken into account in setting the investment strategy of a provider of benefits. Describe how projection models may be used to develop appropriate strategies.
- 3.5 Discuss the principles underlying the use of insurance as a means of risk mitigation.

4 Models, valuations and setting assumptions (30%)

- 4.1 Discuss the use of actuarial models for decision-making purposes, including:
- the objectives of and requirements for building a model for the financial management of the provision of benefits;
 - the basic features of a model for projecting income and outgo;
 - the use of these models for setting contributions, targeting benefit levels and assessing the return on assets; and
 - how sensitivity analysis of the results of the models can be used.

- 4.2 Discuss the principles underlying the determination of the funding method, valuation method and assumptions for valuing benefits and contributions, including:
- the types of information that may be available to help determine the assumptions and methods;
 - the requirements for prudence; and
 - the objectives of the various parties involved.
- 4.3 Discuss how to determine values for assets, past and future benefits and future contribution requirements, including:
- the data requirements;
 - the reasons why the assumptions and methods used may differ in different circumstances;
 - the extent to which values should reflect investment/risk management strategy;
 - how to place values on guarantees and options;
 - sensitivity analysis and reasonableness checking;
- and be able to perform calculations to demonstrate an understanding of the main methods used.
- 4.4 Discuss the principles underlying the determination of discontinuance terms for benefits, taking into account:
- the rights and expectations of beneficiaries;
 - the availability and selection of a method of provision of discontinuance benefits; and
 - the level of available assets.

5 Monitoring experience and the control cycle (10%)

- 5.1 Identify the sources of surplus/deficit for a benefit provider and discuss the factors that affect the application of this surplus/deficit.

6 Solving problems

- 6.1 Analyse hypothetical examples and scenarios in relation to the financial management of pension arrangements.
- 6.1.1 Propose solutions and actions that are appropriate to the given context, with justification where required.
- 6.1.2 Suggest possible reasons why certain actions have been chosen.

- 6.1.3 Assess the implications of actions within a given scenario.
- 6.1.4 Discuss the advantages and disadvantages of suggested actions, taking into account different perspectives.

Assessment

Three hour fifteen minute written examination.

END