

## **1964 FELLOWSHIP EXAM**

I recently ran across this 1964 Fellowship exam. I thought you would find it enjoyable to go through this exam and see what today's exam looks like compared to the 1964 exam. Any comments would be welcome. Your comments might show up in a future issue of the Actuarial Forum.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support informed decision-making.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and reporting, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that data is handled in a responsible and secure manner.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It stresses the importance of ongoing monitoring and evaluation to ensure that data management practices remain effective and aligned with the organization's goals.

6. The sixth part of the document provides a detailed overview of the data management framework, including the roles and responsibilities of various stakeholders involved in the process.

7. The seventh part of the document discusses the future directions of data management, highlighting emerging trends and technologies that will shape the landscape of data management in the coming years.

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## EXAMINATION FOR ENROLLMENT AS FELLOW

### PART IV

MAY 15, 1964

TIME 1:30 TO 4:30 P.M.

#### SECTION (a)

- (a) (8 Points)  
What statistics are published by or are available from the National Board of Fire Underwriters? Include in your answer compilations which the National Board regards as "confidential" and supplies "to the insurance departments and rating bureaus of the respective states and also to member and subscriber companies".
- (b) (2 Points)  
Describe the significant changes which became effective at the beginning of 1963 in the statistical area with respect to the automobile line of insurance.
- (5 Points)  
Describe briefly the contents of each of the following publications and state the source document(s) from which the various publishers obtain the information.
  - Spectator—Insurance by States
  - Best's Fire and Casualty Aggregates and Averages
  - Argus Chart
  - Spectator Handy Chart
- (5 Points)  
Of what does the Spectator's "Factual Financial Appraisal" as shown in the Fire Index consist and on what is it based?

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14. (a) (5 Points)  
You have been furnished with some data on New York Disability Benefits Law Insurance experience which reveals the following:

- Female morbidity is about 1.7 times that of male morbidity.
- The covered payroll for women is 22% of the total covered payroll.
- The average claim cost per \$1.00 of weekly benefits exposed was \$.326.

Determine the average claim cost for males for each \$1.00 of weekly benefits exposed.

- (b) (10 Points)

Experience shows that the claim cost for Statutory D.B.L. Coverage is approximately 60% of the cost of 8th day, 13 weeks plans. What reasons would you give for this difference?

15. (10 Points)

Outline and briefly discuss the procedure discussed by Mr. J. M. Cahill in P.C.A.S. XXVII for developing rates for Workmen's Compensation Excess Coverage (Per Accident Basis) for Self-Insurers.

16. (a) (5 Points)

What are the basic elements entering into premium determination in individual health insurance?

- (b) (5 Points)

As used in Bartelson's "Health Insurance," what is the difference between "realistic" and "conservative" assumptions in determining premiums?

- (c) (5 Points)

What are the major factors to be recognized in the classification of risks in individual health insurance?

17. (10 Points)

In late 1963 a meeting of representatives of stock agent groups and major stock companies resulted in a set of recommendations with respect to insurance rating which have come to be known as the "Johnson Plan" or "Johnson Principles". With what area of insurance rating are these recommendations concerned? Briefly, what are the general provisions of the recommendations?

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4. (10 Points)

An objector to a workmen's compensation rate filing refers to compensation underwriting results for stock carriers in Best's Fire and Casualty Aggregates and Averages. As Insurance department actuary, do you think these results should have any bearing on the propriety of the proposed rates? Why?

5. (30 Points)

Sketch a multiple peril policy of your own design. Include specifically the category of risk for which you intend this policy, the major lines which will be mandatory or optional, your method of establishing the initial premium charge, and your proposed subsequent rating treatment of this policy either in the context of existing rating organizations or as an independent venture. Outline a statistical plan which will meet the statutory requirements of a selected state and will provide the basis for your rating treatment or analysis.

6. (20 Points)

By specific reference to a line or kind of insurance for which traditional premium, loss, and exposure statistics in recent years have not been, in your opinion, a satisfactory basis for prospective ratemaking, develop a procedure utilizing external non-insurance data to attempt to correct the deficiencies you have noted. If you are opposed to introducing external data in your ratemaking, set forth your objections and suggest a modification of the existing statistical program which could improve your ratemaking methods.

7. (10 Points)

Some companies have explored the possibility of retaining punched cards as the basic file-keeping medium, while using magnetic tape electronic equipment as the processing medium. What are the advantages and disadvantages of such a system?

8. (a) (8 Points)

Define the following terms as used in Punched Card Data Processing.

- a. Collating
- b. Control Panel
- c. Detail Printing
- d. Gang Punching

e. Group Printing

- f. Reading
- g. Verification
- h. Zone Punch

(b) (2 Points)

What are "COBOL" and "FORTRAN"? How do they differ?

SECTION (b)

9. (10 Points)

The Comprehensive Dwelling Policies, the Homeowners Policies and the Commercial Property Coverage Policies are examples of the various types of multiple line coverages that have been developed. Briefly describe the methods used in rating each of these policies.

10. (10 Points)

It has sometimes been suggested that the effect of wage changes should be included in the determination of workmen's compensation rate levels because compensation premiums are based on payrolls and will increase with the increase in payrolls while losses, which are also based on wages, will increase to a lesser degree. Discuss, giving your reasons for agreeing or disagreeing with the suggestion.

11. (10 Points)

In the fire field, rating organizations have introduced in many states a revised method of rating dwellings and some other residential property with the method commonly being referred to as the "loss constant plan". Discuss this plan, including a description of the way it operates, the reasons why it was needed and the appropriateness of its title.

12. (10 Points)

What are the major differences in the rating procedures of the Factory Mutual companies as compared with other rating organizations in the fire field?

13. (10 Points)

How are the rating territories established under Massachusetts compulsory auto rating procedures?