



M.Com. IV Semester Degree Examination, October - 2023

COMMERCE

C.Actuarial Valuation Practices

(NEP)

Time : 3 Hours

Maximum Marks : 70

Instruction : Answer **any five** of the following questions with Question no. **1** is **Compulsory**.
Each question carries **fourteen** marks.

1. (a) Explain the crucial role that actuaries play in the insurance industry. How do they contribute to the accurate pricing of insurance policies and the assessment of potential risks ? **10**
- (b) Explore the characteristics of actuarial science. **4**
2. What is mortality table in actuarial science, and why is it a crucial tool for assessing risks ? How do they assist in calculating life insurance premiums, annuity values, and other financial obligations ? **14**
3. Describe the key differences between term assurance, pure endowment, and whole life insurance plans. How does the structure of these plans influence premium calculations ? **14**
4. (a) Define policy values in the context of insurance. How do they represent the financial worth of an insurance policy to policyholders and insurers ? **7**
- (b) Differentiate between prospective and retrospective methods of policy valuation. Explain the advantages and limitations of each approach. **7**
5. (a) Explain the expected value principle in risk management. How does it help insurers assess the average outcome of various potential scenarios ? **7**
- (b) Define the notion of utility in risk management. How does it incorporate individuals preferences and risk tolerance into decision-making ? **7**



- 6.** (a) What is premium loading for expenses ? How does it ensure that insurers cover administrative and operational costs while providing coverage ? **10**
- (b) Discuss how the concept of life expectancy is important in insurance and pension planning ? **4**
- 7.** (a) Describe the different methods used for valuing insurance policies. How do these methods take into account the time value of money and other financial considerations ? **8**
- (b) Compare and contrast the net premium method and the office premium method for valuing insurance policies. **6**
- 8.** (a) Define actuarial risk management and explain its significance in the insurance industry. **5**
- (b) Discuss the advantages and disadvantages of opting for life annuities with monthly payments as opposed to annuities with annual payments. **5**
- (c) Describe the responsibilities of actuaries in risk management within insurance companies. **4**

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