SOA真题November2001Course8R PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/84/2021_2022_SOA_E7_9C_9F_E9_A2_98N_c50_84027.htm COURSE 8: November 2001 - 1 - GO ON TO NEXT PAGERetirement BenefitsComprehensive SegmentMorning SessionNovember, 2001- Course 8RSociety of Actuaries**BEGINNING OF EXAMINATION**MORNING SESSIONQuestions 1 6 pertain to the Case Study1. (7 points) NOCs cash requirements have increased considerably in 2001.The CFO proposed to make, on June 30, 2001 a surplus withdrawal from the pensionfund of the National Oil Full-Time Salaried Pension Plan equal to the expected growth ofthe surplus during 2001.The CFOs model for determining the surplus withdrawal is:#61472.Surplus withdrawal = [Expected Surplus @ 1/1/2002] minus [Surplus @1/1/2001]#61472.Expected Surplus @1/1/2002 = [Expected Assets @1/1/2002] less [ExpectedLiability @1/1/2002]#61472.Expected Assets @1/1/2002 = [Assets @1/1/2001] * [1 expected return on thefund]#61472.Expected Liability @1/1/2002 = [Liability @1/1/2001] * [1 discount rate used todetermine the liability]#61472.The liability to be used is the projected benefit obligation determined under theexpense valuationThe investment managers provided the CFO with an expected return on the fund of8.83%.(a) Explain and calculate the effect of the CFOs proposal on the 2001 pensionexpense, and year-end balance sheet liability. Treat the surplus withdrawal as anegative contribution. Show all work.(b) Critique the model proposed by the CFO.COURSE 8: November

2001 - 2 - GO ON TO NEXT PAGERetirement BenefitsComprehensive SegmentMorning SessionQuestions 1 6 pertain to the Case Study2. (11 points) NOC wants to introduce post-retirement indexing for participants in theNational Oil Full-Time Salaried Pension Plan. NOC is looking for a provision that isrelatively easy to administer and allows NOC to control cost in periods of high inflation.You are given:ParticipantsYears ofServiceAverageYears toVestingProjected BenefitObligation (PBO)as at 1/1/2001Increase in PBO for 1%per year indexing afterretirementActive 0 to 3 4 $1,236,151 $75,000Active 3 to 5 1 8,000,000 550,000Active 5 or more - 446,500,000 31,000,000Deferred vested - - 0 0Pensioners - - 95,541,600 6,100,000Total $551,277,751 $37,725,000The service cost increases by 7% for each 1% per year indexing after retirement.(a) Evaluate alternative approaches for indexing the National Oil Full-Time SalariedPension Plan.(b) Describe how the plan ’s asset allocation should change if NOC adopts automaticindexation.(c) Describe how NOCs actuarial assumptions may change if NOC adoptsautomatic indexation.(d) Explain and calculate the effect on the 2001 pension expense of providingautomatic indexation equal to 100% of CPI. Use the current actuarialassumptions.Show all work.COURSE 8: November 2001 - 3 - GO ON TO NEXT PAGERetirement BenefitsComprehensive SegmentMorning SessionQuestions 1 6 pertain to the Case Study 100Test 下载频道开通，各类考试题目直接下载。详细请访问 www.100test.com