SOCIETY OF ACTUARIES
Group and Health Core Exam – U.S.

Exam GHCORU

MORNING SESSION

Date: Wednesday, April 30, 2014
Time: 8:30 a.m. – 11:45 a.m.

INSTRUCTIONS TO CANDIDATES

General Instructions

1. This examination has a total of 100 points. It consists of a morning session (worth 60 points) and an afternoon session (worth 40 points).

   a) The morning session consists of 9 questions numbered 1 through 9.

   b) The afternoon session consists of 5 questions numbered 10 through 14.

   The points for each question are indicated at the beginning of the question.

2. Failure to stop writing after time is called will result in the disqualification of your answers or further disciplinary action.

3. While every attempt is made to avoid defective questions, sometimes they do occur. If you believe a question is defective, the supervisor or proctor cannot give you any guidance beyond the instructions on the exam booklet.

Written-Answer Instructions

1. Write your candidate number at the top of each sheet. Your name must not appear.

2. Write on only one side of a sheet. Start each question on a fresh sheet. On each sheet, write the number of the question that you are answering. Do not answer more than one question on a single sheet.

3. The answer should be confined to the question as set.

4. When you are asked to calculate, show all your work including any applicable formulas.

5. When you finish, insert all your written-answer sheets into the Essay Answer Envelope. Be sure to hand in all your answer sheets because they cannot be accepted later. Seal the envelope and write your candidate number in the space provided on the outside of the envelope. Check the appropriate box to indicate morning or afternoon session for Exam GHCORU.

6. Be sure your written-answer envelope is signed because if it is not, your examination will not be graded.

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Exam GHCORU

****BEGINNING OF EXAMINATION****
Morning Session

1. (6 *points)* You are an actuary at Fat Cat Insurance (FCI), a company that offers group health and group life products in the United States. The CEO of FCI has asked for more information regarding the Affordable Care Act (ACA) and would like a presentation regarding how Federal involvement has changed over time in the US health care market. The CEO has also asked what state regulatory interventions might occur which could provide protections to the insurers in the market.

(a) (*2 points*) Outline each of the following acts and comment on how each one impacted the balance of regulatory power over health insurance in the United States.

(i) McCarran-Ferguson Act of 1945

(ii) Federal HMO Act of 1973

(iii) Employee Retirement Income Security Act of 1974

(iv) Health Insurance Portability & Accountability Act of 1996

(b) (*2 points*) Identify decisions that states must make with respect to ACA-required exchanges, and explain which three are the most important. Justify your answer.

(c) (*2 points*) Compare and contrast federal and state opportunities to mitigate anti-selection on health benefit exchanges.

2. (*5 points*) You are the pricing actuary for URHealth, a for-profit HMO. Your company will be offering products both on and off the exchange to the extent allowed.

You have been asked to evaluate the 2014 pricing formula for its individual insured, small group insured, and large group self-insured medical products to ensure the rates charged consider all the new Affordable Care Act (ACA) related taxes, fees and assessments.

Describe the ACA-related items you need to include in your retention load, including their purpose, and their applicability to each product.

3. (*9 points*) You are a consulting actuary working with Golden Boomers HMO, which is considering participation in a Medicare-Medicaid Financial Alignment Demonstration in Bloom County. Golden Boomers has experience with Medicare Advantage dual-eligible Special Needs Plans (SNP) in Bloom County, and dual-eligibles in Bloom County have been in managed Medicaid for more than 10 years.

(a) (*2 points*) Prepare a brief memo for Golden Boomers' management that describes the differences between a dual-eligible SNP plan and a Medicare-Medicaid Financial Alignment Demonstration.

(b) (*2 points*) Identify sources of potential savings from Medicare-Medicaid Financial Alignment Demonstrations.

(c) (*1 point*) State reasons why savings may vary from state to state under a Medicare-Medicaid Financial Alignment Demonstration Plan.

(d) (*2 points*) Explain how the following laws have impacted the payments made by the Centers for Medicare and Medicaid Services (CMS) to Medicare Advantage plans.

(i) The Tax Equity and Fiscal Responsibility Act of 1984 (TEFRA)

(ii) The Balanced Budget Act of 1997 (BBA)

(iii) Medicare Prescription Drug, Improvement and Modernization Act of 2003 (MMA)

(iv) Affordable Care Act (ACA)

3. Continued

(e) (*2 points*) Calculate the projected 2014 capitation payment, net of withholds, for Bloom County under a Medicare-Medicaid Financial Alignment Demonstration using the following assumptions provided by CMS and the state's actuary.

2014 Medicaid FFS Costs for Bloom County	$500 PMPM
2014 Medicare FFS Rate for Bloom County	$1,000 PMPM
2014 Medicare Advantage County Benchmark Rate for Bloom County	$920 PMPM
2014 Medicare Advantage Risk Score Coding Adjustment (a/k/a Medicare Advantage Coding Pattern Difference Adjustment)	4.91%
2014 Part D National Average Bid Estimate	$78 PMPM
Expected Savings	2%
Quality Withhold	5%
Expected Percentage FFS Members	10%
Projected 2014 Normalized Part C Risk Score For The Expected Population (Includes Medicare Advantage Coding Pattern Adjustment)	1.1
Projected 2014 Normalized Part D Risk Score For The Expected Population	1.2

4. (*9 points*) Mary, age 20, and her older brother Barry, age 28, are both graduating from college on December 15, 2013 and will be starting new jobs with $60,000 annual salaries at TGIFJ Inc. on January 2, 2014. TGIFJ offers a "simple cafeteria plan" that provides its nonunion employees age 21+ with benefits and makes the minimum required contribution by using the same percentage contribution for all of its 75 employees.

Their father John purchases family medical coverage with HIPAA portability benefits through the cafeteria plan offered by his large employer OGC, Inc. at which he has worked for 20 years. John's cafeteria plan includes choices for medical, dental, short-term disability, long-term disability, group-term life, dependent care expense, and adoption assistance benefits.

Mary and Barry have been investigating all their potential options for coverage, including the new health benefit exchange. The following table contains the cost information they have been able to gather. Assume that the coverage offered by TGIFJ and OGC are actuarially equivalent to the least expensive Silver Plan offered on the Exchange.

	Annual Total Cost of TGIFJ Medical Coverage (Prior To Employee Contributions)	Annual Total Cost of OGC Medical Coverage	Annual Employee Cost of OGC Medical Coverage	Least Expensive Individual Silver Plan On The State's Health Benefit Exchange
Single	$3,000	$2,600	$260	$2,900 for age 0-30 $5,800 for age 31-49 $8,700 for age 50+
Family	$8,200	$7,800	$2,860	N/A

(a) (*2 points*) Describe differences between "simple cafeteria plans" and traditional cafeteria plans.

(b) (*3 point*) Describe the options and calculate costs for medical coverage available on January 2, 2014 to:

(i) Mary,

(ii) Barry,

(iii) Mary, if John had died on December 1, 2013.

(c) (*1 point*) Identify the lowest cost option in (b)(i), (b)(ii), and (b)(iii).

4. Continued

(d) (*1 point*) Describe the changes John may make during 2014 to his cafeteria plan benefits if, instead of John dying on December 1, 2013, John learned on February 14, 2014 that his wife Jane is pregnant with a due date of October 1, 2014.

(e) *(2 points*) Describe how the following laws may apply to John's family assuming his wife is pregnant with a due date of October 1, 2014.

(i) The Family And Medical Leave Act of 1993

(ii) The Newborns' and Mothers' Health Protection Act of 1996

(iii) Michelle's Law

(iv) Mental Health Parity Act of 1996

5. (*5 points*) You have been asked to evaluate a program to control the cost of Medicaid Long Term Care coverage in Untitled State. Untitled State contracts with Speedy Recoveries, a managed care organization who maintains the provider network and controls the placement of patients.

You are given:

- Section 1915(c) waiver is in place, with 1,000 slots available for these waiver services
- Currently 10,000 Medicaid patients utilizing Long Term Care benefits: 9,500 in Nursing Homes, 500 Home and Community-Based Services (HCBS)
- An evaluation of patient records indicates that 3,000 of the Medicaid patients could receive appropriate care in a community based setting.
- Untitled State reimburses Speedy Recoveries according to the following schedule:

Nursing Home	$350 / day
HCBS	$150 / day

- Speedy Recoveries reimburses providers according to the following schedule:

Nursing Home	$300 / day
HCBS	$125 / day

(a) (*1 point)*

(i) List examples of services covered under a Section 1915(c) Home and Community-Based Services Waiver, and

(ii) List federal requirements for states choosing to implement the waiver.

(b) (*2 points*) Describe elements of effective managed Long-Term Care models.

(c) (*2 points*) Recommend changes to the current program in order to reduce the overall cost to Untitled State. Justify your answer and show your work.

6. (*6 points*) You work for Incredibly Poor Risk Insurance Company (IPRIC). The risk sharing provisions of the Affordable Care Act (ACA) have been in effect for more than a year and you have been asked to evaluate a block of business of 10,000 members.

(a) (*1 point*) Describe the following three provisions of the Affordable Care Act, including the markets and timeframes in which they apply:

- Risk Sharing
- Reinsurance
- Risk Corridor

(b) (*2 points*) You are given the following annual member claim cost distribution table for a block of business that is subject to the Reinsurance Provision:

Range of Annual Costs per Member	Accumulated Frequency	Accumulated Annual Claim Cost
$0.00	100.00%	$7,245
$0.01 - 60,000	99.95%	7,245
$60,000.01 - 250,000	0.95%	1,300
$250,000.01+	0.05%	175

Assume that the Reinsurance provision of the ACA pays:

- 0% of claim costs below $60,000
- 80% of claim costs in between $60,000 and $250,000
- 0% of claim costs above $250,000

Determine the reinsurance benefit for the block of business under the Reinsurance provision of the ACA. Show your work.

(c) (*3 points*) You are given the following for the same block of business, which is also subject to the Risk Corridor Provision:

- Premium (including subsidies): 69,000,000
- Administrative Expenses: 12,000,000
- Unadjusted Medical Loss Ratio: 105%
- IPRIC will receive $3,000,000 in payments due to the Risk Adjustment provision

Calculate the amount due to IPRIC under the ACA Risk Corridor provision. Show your work.

7. (*10 points*) Company XYZ is a subsidiary of a U.S. parent company. XYZ offers a post retirement dental plan to their employees. Your manager has given you the following simplified valuation assumptions:

Discount rate: 5% per annum
Trend rate: 4.5% per annum
Current annual claims cost per capita: $500
Termination rate: 3% per annum
Pre-retirement mortality rate: 0% per annum
Retirement rate: 100% at age 65
Age 65 annuity factor (including trend): 12

Plan Details

Coverage Level: Single
Company XYZ pays 100% of the costs
No unamortized balances exist
Future balances would be amortized through profit and loss

Employee demographics are as follows:

Number of employees: 500
Age of employees: 45
Years of service for each employee: 5
Number of retirees: 200
Age of retirees: 65

(a) (*2 points*) Explain how you would validate each of your manager's assumptions and the sources you would reference.

(b) (*3 points*) Calculate the Accrued Benefit Obligation. Show your work.

(c) (*3 points*) An assumption change has increased the annual claims cost per capita to $600. Calculate the annual accounting expense under FAS 106 assuming the minimum amortization allowed. State all assumptions and show your work.

(d) (*2 points*) A plan design change has increased the annual claims cost per capita to $600. Calculate the new annual accounting expense under FAS 106. State all assumptions and show your work.

8. (*5 points*)

(a) (*2 points*) Describe the following balance sheet items as they relate to GAAP reporting for group insurance, and explain their purpose.

(i) Unearned premium reserve (UPR)

(ii) Deferred policy acquisition costs (DPAC)

(iii) Premium deficiency reserve (PDR)

(b) (*3 points*) You are given the following for a block of group Long Term Care business:

- Total annual premium for this business is $5,000,000
- Premiums are due semi-annually on January 1 and July 1
- Expected loss ratio is 86%
- Acquisition expense is 12%
- Maintenance expense is 10%

Calculate the UPR, DPAC, and PDR as of March 31. Show your work.

9. (*5 points*) You are a consulting actuary who has been hired by MonCo, an investment firm, to determine whether to invest in Oingo, a group health insurance company. You have been provided statutory financial statements for Oingo from the past several years, as well as the following Oingo figures developed on a GAAP basis:

Oingo Financial Measures

Total Asset Turnover	70%
Net Profit Margin	3.5%
Total Leverage Ratio	150%

MonCo has indicated they require a projected return on equity of greater than 5% in order to invest in Oingo.

(a) (*1 point*) Describe the major modifications that must be made when converting from US Statutory reporting for group health insurers to US GAAP.

(b) (*1 point*) Explain the key conceptual differences between US Statutory reporting and US GAAP reporting for group health insurers.

(c) (*2 points*) Define and explain the three financial measures provided by Oingo.

(d) (*1 point*) Recommend whether MonCo should invest in Oingo based on MonCo's return on equity requirements. Justify your answer.

****END OF EXAMINATION****
Morning Session

USE THIS PAGE FOR YOUR SCRATCH WORK

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