INSTRUCTIONS TO CANDIDATES

1. This 100 point examination consists of 56 questions divided into two sections. Section I contains 18 multiple choice questions worth 1 point each. Section II contains 36 problem and essay questions worth a total of 82 points.

2. To answer the multiple choice questions, use the short-answer card provided and a number 2 or HB pencil. Mark your short-answer card during the examination period. No additional time will be allowed for this after the exam has ended. Please make your marks dark and fill in the spaces completely. Fill in that it is Spring 2003, and the exam number, 7-United States.

Darken the spaces corresponding to your Candidate ID number. Five rows are available. If your Candidate ID number is fewer than 5 digits, include leading zeros. (For example, if your Candidate ID number is 987, consider that your Candidate ID number is 00987, enter a zero on the first row, 0 on the second row, 9 on the third row, 8 on the fourth row, and 7 on the fifth [last] row.) Please write in your Candidate ID number next to the place where you darken the spaces for your Candidate ID number. Your name, or any other identifying mark, must not appear on the short-answer card.

For the multiple choice questions, mark your answer, “A” through “F”, on the short-answer card. In grading the multiple choice questions, one fourth of the point value of the question will be subtracted for each incorrect answer. No points will be added or subtracted for responses left blank.

3. For the problem and essay questions, the number of points for each full question or part of a question is indicated at the beginning of the question or part. Answer these questions on the lined sheets provided in your Examination Envelope. Use dark pencil or ink. Do not use other colors.

Write your Candidate ID number and the examination number, 7US, at the top of each answer sheet. Your name, or any other identifying mark, must not appear.

Do not answer more than one question on a single sheet of paper. Write on only the lined side of the paper, and be careful to give the number of the question you are answering on each sheet.
The answer should be concise and confined to the question as posed. When a list of a specific size is requested, do not offer more items in your list than the number requested. For example, if you are requested to list three items, only the first three responses will be graded. In order to receive full credit or to maximize partial credit on mathematical and computational questions, you must clearly outline your approach in either verbal or mathematical form, showing calculations where necessary. Also, you must clearly specify any additional assumptions you have made to answer the question.

4. Do all problems until you reach the last page of the examination where “END OF EXAMINATION” is marked.

5. All questions should be answered according to the United States statutory accounting practices and principles, unless specifically instructed otherwise. SAP refers to Statutory Accounting Principles, and GAAP refers to Generally Accepted Accounting Principles.

6. Your Examination Envelope is pre-labeled with your Candidate ID number, name, exam number, and test center. Do not remove this label. Keep a record of your Candidate ID number for future inquiries regarding this exam.

7. At the beginning of the examination, check through the exam booklet for any missing or defective pages. The supervisor has additional exams for those candidates who have defective exam booklets.

8. Candidates must remain in the examination center until two hours after the start of the examination. You may leave the examination room to use the restroom with permission from the supervisor. To avoid excessive noise during the end of the examination, candidates may not leave the exam room during the last fifteen minutes of the examination.

9. At the end of the examination, place the short-answer card and all answer sheets in the Examination Envelope. Please insert your answer pages in your envelope in question number order. Insert a numbered page for each question, even if you have not attempted to answer that question. BEFORE YOU TURN IN THE EXAMINATION ENVELOPE TO THE SUPERVISOR, BE SURE TO SIGN IT IN THE SPACE PROVIDED ABOVE THE CUT-OUT WINDOW.

Anything written in the examination booklet will not be graded. Only the short-answer card and the answer sheets will be graded.

10. If you have brought a self-addressed, stamped envelope, you may put the examination booklet and scrap paper inside and submit it separately to the supervisor. It will be mailed to you. (Do not put the self-addressed stamped envelope inside the Examination Envelope.)
If you do not have a self-addressed, stamped envelope, please place the examination booklet in the Examination Envelope and seal the envelope. You may not take it with you. Do not put scrap paper in the Examination Envelope. The supervisor will collect your scrap paper.

Candidates may obtain a copy of the examination by contacting the CAS Office.

All extra answer sheets, scrap paper, etc., must be returned to the supervisor for disposal.

11. Candidates must not give or receive assistance of any kind during the examination. Any cheating, any attempt to cheat, assisting others to cheat, or participating therein, or other improper conduct will result in the Casualty Actuarial Society disqualifying the candidate's paper, and such other disciplinary action as may be deemed appropriate within the guidelines of the CAS Policy on Examination Discipline.

12. An examination survey and postage-paid reply envelope are included with the examination. No postage is necessary for surveys mailed within the United States. Candidates mailing the survey outside the United States should use the courtesy reply envelope distributed by your exam supervisor. Please complete the survey and leave it with the examination supervisor, or take the survey and envelope with you when leaving the examination center. Please submit the survey to the CAS Office by May 27, 2003. Please do not enclose the survey in the Examination Envelope.

END OF INSTRUCTIONS
SECTION I, QUESTIONS 1 - 18, MULTIPLE CHOICE QUESTIONS (1 POINT EACH)

1. After a major earthquake, the President declares Big City a disaster area and establishes a program that provides low-interest loans for Big City's residents. Which category best describes the nature of this program?

   A. Government Insurance  
   B. Government Indemnity  
   C. Federal Compulsory program  
   D. Social Insurance  
   E. Social Welfare

2. Which of the following statements about automobile assigned risk plans is true?

   A. If an insurer makes a profit from a policy written as part of the program, the insurer keeps that profit.  
   B. If an insurer suffers a loss from a policy written as part of the program, the insurer is reimbursed for that loss by the government.  
   C. The servicing of claims for insureds participating in the program is handled by a central organization for all insurers.  
   D. High-risk drivers covered in these plans typically subsidize the rates of non-high-risk drivers.  
   E. The insurer can choose the rates to charge for the policies written as part of the program.

3. The government provides insurance as an exclusive insurer, in partnership with private insurers, and in competition with private insurers. Which of the following correctly matches up one example of each?

<table>
<thead>
<tr>
<th>Exclusive Insurer</th>
<th>Partnership with Private Insurers</th>
<th>In Competition with Private Insurers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Unemployment</td>
<td>Flood Insurance Plan</td>
<td>Social Security</td>
</tr>
<tr>
<td>B. Export credit insurance</td>
<td>Flood Insurance Plan</td>
<td>Social Security</td>
</tr>
<tr>
<td>C. Unemployment</td>
<td>Federal Crime insurance</td>
<td>Nuclear energy insurance</td>
</tr>
<tr>
<td>D. Monopolistic workers compensation state funds</td>
<td>Federal Crime insurance</td>
<td>Competitive workers compensation state funds</td>
</tr>
<tr>
<td>E. Export credit insurance</td>
<td>Veterans’ life insurance</td>
<td>Competitive workers compensation state funds</td>
</tr>
</tbody>
</table>

CONTINUED ON NEXT PAGE
4. Which of the following statements about the Write Your Own program of the National Flood Insurance Program is true?

A. The insurance companies selling the policies determine the rates to charge.
B. The insurance companies selling the policies receive commissions.
C. The Federal Insurance Association adjusts the claims.
D. If premium exceeds losses plus commissions, the insurer keeps the profit.
E. The insurance companies selling the policies determine coverage eligibility.

5. In which situation is socialized insurance pricing (cross-subsidization of insurance prices) least acceptable?

A. When the intended participants are legally compelled to participate in an insurance program.
B. When the intended participants can choose among competing insurers.
C. When the insurer is insulated from competition.
D. When the insurer's profits are subject to expropriation by the government.
E. When the participants believe the overall benefits of group participation exceed the costs of socialization.

6. A state's powers usually include the authority to issue directives related to which of the following?

1. Insurer investments
2. Reinsurance
3. Insurer solvency

A. 1 only
B. 2 only
C. 1 and 3 only
D. 2 and 3 only
E. 1, 2, and 3
7. Which of the following are benefits of catastrophe modeling?

1. Federally approved hurricane model
2. Prices that more accurately reflect risk of loss
3. Greater availability of coverage

A. 1 only
B. 2 only
C. 1 and 3 only
D. 2 and 3 only
E. 1, 2, and 3

8. The McCarran-Ferguson Act did which of the following things?

1. Eliminated federal regulation of insurance
2. Modified the applicability of federal antitrust laws
3. Defined what constitutes the “business of insurance”

A. 1 only
B. 2 only
C. 1 and 2 only
D. 1 and 3 only
E. 2 and 3 only

9. Which of the following are activities of the National Association of Insurance Commissioners?

1. Improving the reliability of insurance institutions as to solvency
2. Promoting the federal regulation of insurance
3. Recommending insurance laws to state legislatures

A. 1 only
B. 3 only
C. 1 and 2 only
D. 1 and 3 only
E. 2 and 3 only
10. Which of the following statements about Excess & Surplus lines regulations is true?

A. Excess & Surplus lines insurers are not subject to solvency regulations.
B. Regulatory standards for foreign insurers are generally more demanding than those for alien insurers.
C. Alien insurers must meet minimum capitalization requirements to receive business from surplus lines agents.
D. The “automatic export” provision will inhibit surplus lines insurers’ ability to respond to customer demands.
E. To write surplus lines business in the U.S., an alien insurer must be approved by the NAIC.

11. If it is determined that the plaintiff is 70% at-fault and the defendant is 30% at-fault, under which of the following is the plaintiff entitled to recover 30% of his damages?

A. Contributory negligence system
B. Last clear chance doctrine
C. “Less-negligent” comparative negligence system
D. “Not-more-negligent” comparative negligence system
E. “Pure” comparative negligence system

12. Which of the following is true regarding the tort and no-fault systems?

A. Workers compensation claims are typically settled according to the tort system.
B. Automobile no-fault laws typically apply only to personal automobile insurance.
C. Under typical automobile no-fault laws, non-economic damages are only available for recovery in tort.
D. Under the tort system, plaintiffs’ attorneys typically require the injured party to pay some legal expenses up front before a suit will be filed.
E. The original no-fault laws evolved from the courts’ application of the doctrine of absolute liability to automobile tort actions.
13. Which of the following describes the proper statutory accounting for common stocks, bonds with Class 2 Securities Valuation Office designation, and home office real estate occupied by the company?

<table>
<thead>
<tr>
<th>Common Stocks</th>
<th>Bonds with Class 2 Securities Valuation Office designation</th>
<th>Home office real estate occupied by the company</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Market Value</td>
<td>Amortized Value</td>
</tr>
<tr>
<td>B.</td>
<td>Market Value</td>
<td>Market Value</td>
</tr>
<tr>
<td>C.</td>
<td>Amortized Value</td>
<td>Market Value</td>
</tr>
<tr>
<td>D.</td>
<td>Amortized Value</td>
<td>Amortized Value</td>
</tr>
<tr>
<td>E.</td>
<td>Market Value</td>
<td>Amortized Value</td>
</tr>
</tbody>
</table>

14. Assume that the Cash Flow exhibit, page 5 of the U.S. Annual Statement, shows that net cash from operations is exactly zero. All else being equal, which one of the following changes would have resulted in a positive net cash flow from operations?

A. Increased net investment income  
B. Decreased paid dividends to stockholders  
C. Increased paid dividends to stockholders  
D. Increased paid underwriting expenses  
E. Increased unrealized capital gains

15. Which of the following are acceptable uses of risk-based capital standards?

1. Solvency monitoring tool for insurance regulators  
2. Ratemaking tool to determine the required capital for return-on-equity filings  
3. Legal authority to intervene in operations of financially troubled companies

A. 1 only  
B. 3 only  
C. 1 and 2 only  
D. 1 and 3 only  
E. 2 and 3 only

CONTINUED ON NEXT PAGE
16. Which of the following might mitigate the concerns related to an unusually high value for the IRIS ratio "Change in Writings"?

1. The recent introduction of a new product
2. A relatively low net premium to surplus ratio
3. Adequate reserves

A. 1 only
B. 2 only
C. 1 and 3 only
D. 2 and 3 only
E. 1, 2, and 3

17. An insurance analyst is assessing the adequacy of Company XYZ's reserves by examining Schedule P of Company XYZ's 2002 Annual Statement. She creates current average claim severities, by accident year, by dividing the Incurred Net Losses and Defense and Cost Containment Expenses (Part 2) by the Cumulative Number of Claims Reported Direct and Assumed (Part 5 – Section 3). She notices a significant drop in claim severity in the last two accident years.

Which of the following may be a reasonable explanation for the claim severity decrease?

1. The company entered into a 50% quota share reinsurance treaty on all its business.
2. The company decreased its net retention on an excess of loss basis from $5 million to $1 million.
3. The company started reflecting workers compensation discounting in its reserves for accidents.

A. 2 only
B. 3 only
C. 1 and 2 only
D. 1 and 3 only
E. 1, 2, and 3
18. According to Feldblum, "NAIC Property/Casualty Insurance Company Risk-Based Capital Requirements," which of the following was a criticism of the reinsurance charge for risk-based capital when it was first implemented?

A. It promoted the use of sham reinsurance contracts that would shift reserves between subsidiary companies.

B. The charge for reinsurance provided an incentive to overuse reinsurance.

C. Companies were not penalized for reinsurance contracts that adjusted ceded premium based on actual ceded experience.

D. There was no difference in the charge for unauthorized off-shore reinsurers and well-capitalized domestic reinsurers.

E. The charge treated collateralized and non-secured reinsurance recoverables differently.

CONTINUED ON NEXT PAGE
SECTION II, QUESTIONS 19 - 56, WRITTEN ANSWER QUESTIONS

19. (3.5 points)

Governments occasionally become involved in insurance.

a. (1 point)

Identify four reasons that justify government participation in insurance.

b. (1.5 points)

Identify two government insurance programs and, using the reasons cited in part a. above, describe the issue(s) the government was trying to address.

c. (1 point)

For each program identified in part b. above, has the government been successful in addressing the issue(s) it attempted to address? Provide one reason supporting your response for each program.

20. (1 point)

Briefly describe the “intergenerational transfer” aspect of Social Security.

21. (1 point)

It has been proposed that a portion of Social Security funds be invested in equities.

a. (0.5 point)

Discuss one argument in support of this proposal.

b. (0.5 point)

Discuss one argument against this proposal.
22. (2 points)

It has been argued that residual market mechanisms socialize insurance costs.

a. (0.5 point)

Describe how residual market mechanisms create cross subsidies.

b. (1 point)

Describe two adverse consequences of the cross subsidies created by residual market mechanisms.

c. (0.5 point)

Describe how governments can alleviate one of the adverse consequences cited in part b. above

23. (1.5 points)

The Social Security program was not designed to be fully funded.

a. (0.5 point)

Briefly describe what is meant by "fully funded."

b. (1 point)

Describe two reasons why being fully funded is more important for private pension plans than for the Social Security program.

24. (1 point)

The principles of contract law apply to insurance policies.

a. (0.5 point)

Explain how a private passenger automobile policy is a contract of adhesion.

b. (0.5 point)

What is the doctrine of reasonable expectations as applied to a private passenger automobile policy?
25. (1 point)

Article 23 of the New York Insurance Law addresses the regulation of property and casualty insurance rates. Under what conditions would Article 23 allow an insurer to file to increase its property rates in New York in reaction to severe hurricane losses in Florida?

26. (2 points)

Implementing restrictions on the use of classification variables has sometimes resulted in an increased impact of experience surcharges on the final rates charged.

a. (1 point)

For personal automobile insurance, describe two negative consequences of applying experience surcharges in excess of those used in conjunction with more flexible classification plans.

b. (1 point)

Would the consequences described in part a. above be as significant for homeowners insurance? Why or why not?

27. (1.25 points)

When discussing the redlining issue, insurance companies and federal agencies, such as the Department of Housing and Urban Development (HUD), focus on either “disparate treatment” or “disparate impact.”

a. (0.5 point)

Explain the difference between disparate treatment and disparate impact.

b. (0.5 point)

How would insurance company practices be evaluated using each of these two perspectives?

c. (0.25 point)

Which perspective describes HUD’s approach?
28. (1 point)

Guaranty funds are not set up to provide complete protection for insureds in the event of an insurer insolvency. Describe two situations where the guaranty fund protection is not as broad as the protection offered by the original insurance policy.

29. (2 points)

Measures of solvency vary between the insurance industry and other industries.

a. (1 point)

Describe how determining the insolvency of an insurance company differs from determining bankruptcy for a non-insurance company.

b. (1 point)

The disposition of a bankrupt non-insurance company is handled by the court system. Briefly describe the disposition of an insolvent insurance company.

30. (3 points)

Over the past several years, insurance companies have implemented simulation models to estimate appropriate catastrophe provisions in rates.

a. (1 point)

Describe two concerns with the prior catastrophe ratemaking methodology that motivated insurance companies to implement simulation models.

b. (1 point)

Describe two challenges to regulators as they evaluate simulation models used in catastrophe rating.

c. (1 point)

Describe two ways that a regulator could respond to the challenges described in part b. above
31. (1 point)

For each of the following arguments in support of prior approval rate regulation, provide one counter-argument.

a. (0.25 point)

The insurance industry's limited exemption from federal antitrust law facilitates collusion among insurers to increase prices.

b. (0.25 point)

Consumers must be protected from inadvertently purchasing coverage from high-priced insurers.

c. (0.25 point)

When the purchase of insurance is mandatory, insurance rates must be regulated to prevent excessive profits for insurers.

d. (0.25 point)

When the purchase of insurance is mandatory, insurance must be regulated to ensure that coverage is affordable for all.

32. (2 points)

In addition to prior approval, there are three basic types of rating laws for property and casualty lines of insurance.

a. (1.5 points)

Identify and describe the three other types of rating laws.

b. (0.5 point)

Why do states distinguish between rate filings and coverage filings when they decide how to establish filing laws?
33. (1.5 points)

The State of XYZ recently approved an increase in workers compensation rates that includes a significant load for terrorism.

Would it be appropriate for the State of XYZ legislature to enact an excess profits statute in response to this rate change? Why or why not?

34. (2 points)

Consider two different types of residual market programs for automobile insurance. For each, describe the following aspects of the program.

a. (1 point)

How the insureds select and/or get distributed among insurers.

b. (0.5 point)

Who issues policies, collects premium and pays claims.

c. (0.5 point)

How the profit or loss is distributed.

35. (1 point)

In United States v. South-Eastern Underwriters Association (SEUA), criminal indictments were brought against the SEUA for several activities.

a. (0.25 point)

What was the defense used by the SEUA?

b. (0.25 point)

What was the decision by the U.S. Supreme Court?

c. (0.5 point)

Briefly describe the activities of the National Association of Insurance Commissioners in the wake of the SEUA decision.
36. (3 points)

Describe two distinguishing characteristics of the rate regulation climate that were present during each of the following time periods.

a. (1 point)

1900 – 1943

b. (1 point)

1944 – 1970

c. (1 point)

1971 – present

37. (1 point)

The federal Product Liability Risk Retention Act of 1981 enabled product manufacturers, wholesalers, distributors, and retailers to form risk retention groups.

a. (0.5 point)

Explain the extent to which risk retention groups are subject to state regulation as a result of this Act.

b. (0.5 point)

Explain the reason it was necessary to implement federal legislation in this manner rather than permit state legislation to solely govern the formation of these groups.
38. (2 points)

a. (0.5 point)

What is the purpose of the Excess & Surplus (E&S) lines insurance market?

b. (1 point)


c. (0.5 point)

Identify the cause in part b. above to which E&S lines insurers are most susceptible. Explain your answer.
39. (4 points)

It has been argued that jury awards in County X have risen at an excessive rate and are out of control. This is supported by the statistic that jury awards have increased from $86 million in 1998 to $280 million in 2000.

The following represents the most recent data available regarding lawsuits that have been completed in County X ("M" = million):

<table>
<thead>
<tr>
<th>Year of L$suit</th>
<th>Size of Lawsuit</th>
<th># of Lawsuits</th>
<th># of Awards</th>
<th>Total Awarded ($000)</th>
<th>Ratio Paid/Awarded (after appeal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>&lt; $1M</td>
<td>750</td>
<td>450</td>
<td>20,250</td>
<td>90.0%</td>
</tr>
<tr>
<td></td>
<td>&gt;= $1M</td>
<td>100</td>
<td>33</td>
<td>66,000</td>
<td>65.0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>850</td>
<td>483</td>
<td>86,250</td>
<td>70.9%</td>
</tr>
<tr>
<td>1999</td>
<td>&lt; $1M</td>
<td>863</td>
<td>475</td>
<td>22,800</td>
<td>86.0%</td>
</tr>
<tr>
<td></td>
<td>&gt;= $1M</td>
<td>125</td>
<td>56</td>
<td>128,800</td>
<td>68.0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>988</td>
<td>531</td>
<td>151,600</td>
<td>70.7%</td>
</tr>
<tr>
<td>2000</td>
<td>&lt; $1M</td>
<td>992</td>
<td>496</td>
<td>25,792</td>
<td>80.0%</td>
</tr>
<tr>
<td></td>
<td>&gt;= $1M</td>
<td>219</td>
<td>96</td>
<td>253,920</td>
<td>60.0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1,211</td>
<td>592</td>
<td>279,712</td>
<td>61.8%</td>
</tr>
</tbody>
</table>

The following information is also available:

Population growth
1998 – 1999: 7.50%
1999 – 2000: 6.00%

Growth in vehicles mirrors the growth in the population.

General Inflation was 5% annually from 1998 to 2000.
Medical Cost Inflation was 8% annually from 1998 to 2000.

The < $1M lawsuits are predominantly automobile and the >= $1M lawsuits are predominantly product liability.

Given the information above, do you agree with the statement that juries and/or the civil justice system are out of control in County X? Provide details to defend your conclusions.
40. (1.5 points)

No-fault laws usually contain a threshold that must be reached before an injured party may sue for damages.

a. (0.5 point)

Identify two general types of thresholds.

b. (1 point)

Discuss one problem with the application of each type of threshold identified in part a. above

41. (2.5 points)

The NAIC Zone examinations and the IRIS tests are both used by insurance regulators in solvency regulation.

a. (1 point)

Describe two purposes of the NAIC Zone examinations.

b. (0.5 point)

Describe the primary purpose of the IRIS tests.

c. (1 point)

Are the NAIC Zone examinations and the IRIS tests redundant? Explain in your answer how they overlap or complement each other.
42. (1.5 points)

Given the following information for Company ABC, answer the questions below. Show all work.

Direct premiums written: 1,600,000
Assumed premiums written: 300,000
Ceded premiums written: 200,000
Unadjusted policyholders surplus: 525,000

Portion of total net written premium by line of insurance:

<table>
<thead>
<tr>
<th>Line of Insurance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire</td>
<td>50</td>
</tr>
<tr>
<td>Allied Lines</td>
<td>30</td>
</tr>
<tr>
<td>Homeowners</td>
<td>10</td>
</tr>
<tr>
<td>Personal Auto Liability</td>
<td>5</td>
</tr>
<tr>
<td>Personal Auto Physical Damage</td>
<td>5</td>
</tr>
</tbody>
</table>

a. (1 point)

Does ABC pass the IRIS Net Premium to Surplus Ratio Test?

b. (0.5 point)

How might a regulator interpret the results of the Net Premium to Surplus Ratio Test for Company ABC?
43. (5 points)

Use the following information for Company A to answer the questions below. Show all work.

All data is from the Annual Statement for the referenced year.

Company A writes only medical malpractice and products liability.

<table>
<thead>
<tr>
<th></th>
<th>Medical Malpractice</th>
<th>Products Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
<td>2002</td>
</tr>
<tr>
<td>Commission and Brokerage incurred</td>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>Taxes, Licenses, and Fees incurred</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td>Other acquisition expenses incurred</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Net general expenses incurred</td>
<td>150</td>
<td>180</td>
</tr>
<tr>
<td>Net written premium</td>
<td>1,000</td>
<td>1,200</td>
</tr>
<tr>
<td>Net earned premium</td>
<td>800</td>
<td>1,000</td>
</tr>
<tr>
<td>Net Loss and LAE reserves</td>
<td>3,000</td>
<td>4,000</td>
</tr>
<tr>
<td>Unearned premium reserves</td>
<td>250</td>
<td>300</td>
</tr>
<tr>
<td>Agents' balances</td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Company A Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
</tr>
<tr>
<td>Net investment income</td>
<td>1,000</td>
</tr>
<tr>
<td>Realized capital gains</td>
<td>300</td>
</tr>
<tr>
<td>Unrealized capital gains</td>
<td>300</td>
</tr>
<tr>
<td>Policyholders' surplus</td>
<td>3,000</td>
</tr>
</tbody>
</table>

a. (3 points)

Determine the investment gains on funds attributable to insurance transactions by line of business in 2002.

b. (2 points)

Determine the investment gains on funds attributable to capital surplus by line of business in 2002.
44. (2 points)

The Cash Flow Exhibit and Statement of Income in the Annual Statement use different accounting evaluation bases. Describe two scenarios under which there could be positive income, but negative cash flow. Explain your answer for each scenario.

45. (2 points)

A ceding company, CC, purchases a reinsurance contract from a reinsurance company, RC.

RC agrees to indemnify 100% of the losses of CC’s aggregate losses between $500,000 and $1,000,000 for calendar year 2003. CC pays $475,000 for this contract on January 1, 2003. RC agrees to indemnify CC on December 31, 2003 for any amount owed on the contract.

CC’s history of losses is detailed below.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Aggregate Incurred Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>1998</td>
<td>$1,800,000</td>
</tr>
<tr>
<td>1999</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>2000</td>
<td>$1,250,000</td>
</tr>
<tr>
<td>2001</td>
<td>$1,750,000</td>
</tr>
</tbody>
</table>

No significant changes occurred in CC’s book of business from 1997-2002, nor are any changes anticipated in 2003.

Will CC be able to account for the expense of this contract as reinsurance? Explain and justify your answer.
46. (2 points)

Given the following information from Company ABC’s Annual Statement, answer the questions below. Company ABC’s only reinsurance is a 50% quota share treaty with Secure Re, an authorized reinsurer that is determined not to be slow-paying. Show all work.

<table>
<thead>
<tr>
<th>Item</th>
<th>Values at December 31, 2002</th>
<th>Values at December 31, 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surplus</td>
<td>?</td>
<td>1,000</td>
</tr>
<tr>
<td>Written Premium</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>Earned Premium</td>
<td>90</td>
<td>70</td>
</tr>
<tr>
<td>Incurred Loss &amp; LAE</td>
<td>70</td>
<td>65</td>
</tr>
<tr>
<td>Expenses</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Investment Income Earned</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Net Realized Capital Gains</td>
<td>-3</td>
<td>0</td>
</tr>
<tr>
<td>Net Unrealized Capital Gains</td>
<td>-10</td>
<td>-14</td>
</tr>
<tr>
<td>Dividends to Policyholders</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Federal Income Tax</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Agents Balances Over 90 Days Due</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Treasury Stock</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Total Reinsurance Recoverables</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>Collateral Secured through Letters of Credit</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Reinsurance Recoverables on Paid Loss &amp; ALAE Over 90 Days Due</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

a. (1 point)

What is ABC’s Net Income for 2002?

b. (1 point)

What is ABC’s Surplus as of December 31, 2002?
47. (1.5 points)

Calculate the provision for reinsurance, given the following information for a slow-paying, authorized reinsurer. Show all work.

| Recoverables on loss and LAE paid | 10 |
| Recoverables on loss and LAE paid 90+ days due | 7 |
| Recoverables on loss and LAE unpaid | 10 |
| Ceded unearned premium reserves | 5 |
| Collateral secured | 20 |

48. (2 points)

Historically, calendar year Adjusting and Other Expense payments were allocated 45% to the current accident year and 5% to the first prior year, with the balance spread to all years based on paid loss during the year. Beginning with the 1997 Annual Statement, this method was revised.

a. (1 point)

Give an example of a line of business where the historical method could potentially overallocate the Adjusting and Other Expense to the more recent accident years. Explain your answer.

b. (0.5 point)

What is the basis for the revised method of allocating Adjusting and Other Expense?

c. (0.5 point)

Does the revised method reduce the potential for overallocation for the line of business you identified in part a. above? Explain your answer.

49. (1 point)

There is a general rule that net income is maximized when the regular tax is equal to the alternative minimum tax. Explain a case where this rule is not true and describe the optimum strategy to use in that situation.
50. (4 points)

Given the following information, answer the questions below. Show all work.
A group of personal lines insurance companies affiliated with PLI Holding had the
following structure as of December 31, 2002.

<table>
<thead>
<tr>
<th>Company</th>
<th>Place of Domicile</th>
<th>Adjusted Surplus</th>
<th>Ownership</th>
<th>Ownership type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLI Auto</td>
<td>California</td>
<td>175</td>
<td>100% by PLI Holding</td>
<td>Common</td>
</tr>
<tr>
<td>PLI Home</td>
<td>Delaware</td>
<td>275</td>
<td>100% by PLI Auto</td>
<td>Common</td>
</tr>
<tr>
<td>PLI Financial</td>
<td>Florida</td>
<td>200</td>
<td>100% by PLI Home</td>
<td>Common</td>
</tr>
<tr>
<td>PLI Captive</td>
<td>Bermuda</td>
<td>190</td>
<td>75% by PLI Holding, 25% by PLI Auto</td>
<td>Common</td>
</tr>
</tbody>
</table>

Assume no other related entities.
Assume that all of PLI Home's investments in stocks and bonds are made through PLI Financial.
Assume all companies other than PLI Financial are insurers.
Assume PLI Financial has no liabilities and is invested 60% in common stock and 40% in U.S.
government securities.

Assume the following RBC factors have already been calculated, including the reserving risk adjustments.

<table>
<thead>
<tr>
<th></th>
<th>PLI Auto</th>
<th>PLI Home</th>
</tr>
</thead>
<tbody>
<tr>
<td>R0</td>
<td>?</td>
<td>0</td>
</tr>
<tr>
<td>R1</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>R2</td>
<td>10</td>
<td>?</td>
</tr>
<tr>
<td>R3</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>R4</td>
<td>80</td>
<td>50</td>
</tr>
<tr>
<td>R5</td>
<td>45</td>
<td>30</td>
</tr>
</tbody>
</table>

a. (1 point)
Calculate R2 for PLI Home.

b. (0.5 point)
Calculate the RBC for PLI Home.

c. (1 point)
Calculate R0 for PLI Auto.

d. (0.5 point)
Calculate the RBC for PLI Auto.

e. (1 point)
Identify the RBC action level for PLI Auto and describe the responses required of the company and of the state insurance commissioner under this level.

CONTINUED ON NEXT PAGE
51. (4.5 points)

Compute Primary Insurance Company’s income tax for Tax Year 2002, using the following information. Assume that Adjusted Current Earnings equals statutory book income. Show all work.

Primary Insurance Company started operations in 1999. Primary has always written only commercial auto liability business. Primary had $0 in reserves for Adjusting and Other Unpaid expenses for each of the past four years.

2002 Net Written Premium was $43,000,000
2002 Annual Statement’s Unearned Premium Reserve is $27,000,000
2002 Realized Capital Gains were $1,000,000
2002 Statutory Underwriting Profit was $4,000,000

Primary’s Invested Assets are:

- Taxable bonds totaling $10,000,000 paying a 6% interest rate
- Tax-free bonds totaling $120,000,000 paying a 5% interest rate
- Equities in unaffiliated companies of $40,000,000 paying dividends at 5%

The average reserves discount factor is:

- 88.0% at the beginning of the tax year
- 85.0% at the end of the tax year

Federal Income Tax Rates are:

- Regular Tax: 35%
- Alternative Minimum Tax: 20%

Excerpts from Primary Insurance Company’s 2002 Annual Statement, Schedule P are on the next page.
51. (continued)

Excerpts from Primary's 2002 Annual Statement, Schedule P:

Part 1C - Commercial Auto/Truck Liability/Medical

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Earned Premium ($000 Omitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>32,000</td>
</tr>
<tr>
<td>2000</td>
<td>33,000</td>
</tr>
<tr>
<td>2001</td>
<td>37,000</td>
</tr>
<tr>
<td>2002</td>
<td>38,000</td>
</tr>
</tbody>
</table>

Part 2C - Commercial Auto/Truck Liability/Medical

<table>
<thead>
<tr>
<th>Year in Which Losses Were Incurred</th>
<th>Incurred Net Losses and Defense Containment Expenses Reported at Year End ($000 omitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>xxx</td>
</tr>
<tr>
<td>2000</td>
<td>xxx</td>
</tr>
<tr>
<td>2001</td>
<td>xxx</td>
</tr>
<tr>
<td>2002</td>
<td>xxx</td>
</tr>
</tbody>
</table>

Part 3C - Commercial Auto/Truck Liability/Medical

<table>
<thead>
<tr>
<th>Year in Which Losses Were Incurred</th>
<th>Cumulative Paid Net Losses and Defense Containment Expenses Reported at Year End ($000 omitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>xxx</td>
</tr>
<tr>
<td>2000</td>
<td>xxx</td>
</tr>
<tr>
<td>2001</td>
<td>xxx</td>
</tr>
<tr>
<td>2002</td>
<td>xxx</td>
</tr>
</tbody>
</table>

Part 4C - Commercial Auto/Truck Liability/Medical

<table>
<thead>
<tr>
<th>Year in Which Losses Were Incurred</th>
<th>Bulk and IBNR Reserves on Net Losses and Defense Containment Expenses Reported at Year End ($000 omitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>xxx</td>
</tr>
<tr>
<td>2000</td>
<td>xxx</td>
</tr>
<tr>
<td>2001</td>
<td>xxx</td>
</tr>
<tr>
<td>2002</td>
<td>xxx</td>
</tr>
</tbody>
</table>
52. (7.25 points)

Use the following information to answer the questions below.

To take advantage of the hardening insurance market, Aggressive Insurance Company was formed in the beginning of 2002. The company writes Excess Casualty for high hazard classes, Commercial Property for properties in catastrophe-prone areas, and Workers Compensation for coal mining exposures.

Aggressive Insurance Company keeps 10% of its premium on a net basis, and 90% of its premium is ceded to three reinsurers, which are all solvent: Catastrophe Re, Excess Liability Re, and Offshore WC Re.

Schedule F, Part 5 for Aggressive Insurance Company is on the next page. The only recoverables in dispute are $1,000,000 of recoverables from Offshore WC Re.

a. (2.25 points)

Describe three ways in which an insurer may be charged a Provision for Reinsurance due to the use of unauthorized reinsurance.

b. (0.75 point)

For each item in part a. above, describe how to completely avoid a Provision for Reinsurance.

c. (1.25 points)

Calculate the Provision for Reinsurance for Aggressive Insurance Company. Show all work.

d. (0.5 point)

Describe how the Provision for Reinsurance impacts the SAP balance sheet of Aggressive Insurance Company.

e. (0.5 point)

Explain how unauthorized reinsurance impacts the GAAP balance sheet.

f. (0.5 point)

In general, why are Provisions for Reinsurance needed for unauthorized reinsurers?

g. (0.5 point)

Describe one circumstance in which a Provision for Reinsurance would be insufficient compared to the financial consequence of using an unauthorized reinsurer.

h. (1 point)

Discuss what should be included in the reinsurance collectibility section of the Statement of Actuarial Opinion for Aggressive Insurance Company.

CONTINUED ON NEXT PAGE
ANNUAL STATEMENT FOR THE YEAR 2002 OF AGGRESSIVE INSURANCE COMPANY

SCHEDULE F - PART 5

Provision for Unauthorized Reinsurance as of December 31, Current Year (000 Omitted)

<table>
<thead>
<tr>
<th>LINE</th>
<th>FEIN</th>
<th>NAIC Company Code</th>
<th>Name of Reinsurer</th>
<th>Domiciliary Jurisdiction</th>
<th>Reinsurance Recoverable All Items</th>
<th>Funds Held By Company Under Reinsurance Treaties</th>
<th>Letters of Credit</th>
<th>Coded Balances Payable</th>
<th>Miscellaneous Balances</th>
<th>Other Allowed Offset Items</th>
<th>Sum of Offsets</th>
<th>Subtotal Reinsurance Recoverable minus Sum Offset Items</th>
<th>Recoverable Paid Losses &amp; LAE Over 90 Days Past Due not in Dispute</th>
<th>20% of Amount in Column 13</th>
<th>Smaller of Column 11 or Column 14</th>
<th>Smaller of Column 11 or 20% of Amount in Dispute Column 5</th>
<th>Total Provision for Unauthorized Reinsurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>199999</td>
<td>Subtotal - affiliates - U.S intercompany pooling</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>299999</td>
<td>Subtotal - affiliates - U.S. non-pool</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>399999</td>
<td>Subtotal - affiliates - other (non-U.S.)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>499999</td>
<td>Subtotal - affiliates</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>599999</td>
<td>Subtotal - other U.S. unaffiliated insurers</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>699999</td>
<td>Subtotal - pools - mandatory pools</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>799999</td>
<td>Subtotal - pools - voluntary pools</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>800001</td>
<td>AA-377099</td>
<td>0</td>
<td>CATASTROPHE RE</td>
<td>BM</td>
<td>10,000</td>
<td>0</td>
<td>8,000</td>
<td>500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>800002</td>
<td>AA-136123</td>
<td>0</td>
<td>EXCESS LIABILITY RE</td>
<td>BM</td>
<td>15,000</td>
<td>0</td>
<td>15,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>800003</td>
<td>AA-319991</td>
<td>0</td>
<td>OFFSHORE WC RE</td>
<td>BM</td>
<td>8,000</td>
<td>0</td>
<td>3,500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>899999</td>
<td>Subtotal - other non - U.S. insurers</td>
<td>33,000</td>
<td>0</td>
<td>34,500</td>
<td>500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>999999</td>
<td>Totals - Schedule F - Part 5</td>
<td>33,000</td>
<td>0</td>
<td>34,500</td>
<td>500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Footnotes:
1 Amounts in dispute totaling $1,000 are included in reinsurance recoverable all items.
2 Amounts in dispute totaling $0 are excluded from recoverable pd losses & lae over 90 days not disputed
3 Reinsurance recoverable all items excludes $0 recoverables on coded IBNR prior to July 1, 1984

CONTINUED ON NEXT PAGE

27
53. (1.5 points)

Describe one difference between SAP and GAAP for each of the following items.

a. (0.5 point)
   Assets

b. (0.5 point)
   Investments

c. (0.5 point)
   Expenses

54. (1.75 points)

Given the following information on Company DEF at year-end, calculate the Deferred Policy Acquisition Cost (DPAC). Show all work.

<table>
<thead>
<tr>
<th>Policy Acquisition Expense Ratio</th>
<th>20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Expense Ratio</td>
<td>10%</td>
</tr>
<tr>
<td>Unearned Premium Reserve</td>
<td>$1,000,000</td>
</tr>
</tbody>
</table>

The following items relate only to the Unearned Premium Reserve.

<table>
<thead>
<tr>
<th>Expected Loss and Loss Adjustment Expense</th>
<th>$825,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Dividends to Policyholders</td>
<td>$50,000</td>
</tr>
<tr>
<td>Expected Investment Income</td>
<td>$5,000</td>
</tr>
</tbody>
</table>
55. (3 points)

The Annual Statement Instructions for the Statement of Actuarial Opinion describe the responsibilities of the appointed actuary.

a. (2 points)

The appointed actuary must comment on salvage and subrogation only if they have a material effect on loss reserves. Discuss four topics the appointed actuary must address in the Statement of Actuarial Opinion, regardless of their materiality.

b. (1 point)

Discuss two obligations the appointed actuary has to the Board of Directors.

56. (1.25 points)

a. (0.5 point)

As defined in the NAIC Annual Statement Instructions, what are "Long Duration Contracts"?

b. (0.5 point)

Upon which reserves must an appointed actuary opine in the Statement of Actuarial Opinion regarding Long Duration Contracts?

c. (0.25 point)

Identify one contract type that is explicitly excluded from this requirement.
Spring 2003 Exam 7US Preliminary Multiple Choice Answers

SECTION I, QUESTIONS 1 - 20, MULTIPLE CHOICE QUESTIONS

1. B
2. A
3. A
4. B
5. B
6. E
7. D
8. B
9. D
10. C
11. E
12. C
13. A
14. A
15. D
16. D
17. C
18. D
Exam 7US
Question 19

A)  
1. Gov’t is more efficient (eg. Doesn’t have to pay commissions)  
2. Compulsion – gov’t can force public by law to buy insurance  
3. Accomplish collateral social good  
4. Residual Mkt – the private sector isn’t providing coverage so the gov’t steps in.

B)  
1. State run P&C insurance on State Property: namely addressed efficiency:  The state could save money by insuring it themselves. The states already had the capabilities in place to do some of the work. Compulsion, residual mkt, and collateral good were not aims of the program.

2. Social Security – implemented to provide coverage to all the population (needed element of compulsion). Collateral purpose is to subsidize the low income. Arguably the gov’t is more efficient (better able) to run the program because it is so big. Residual Mkt not a goal of program?.

C)  
1. State P&C – Yes; Provide coverage at lower rates than available in private sector.

2. Social Security – Compulsion – Yes practically every one has coverage; the goal of covering the population was achieved. Subsidy occurs too.

Exam 7US
Question 20

Intergenerational transfer describes the fact that Social Security is mostly a “pay as you go” system. Current workers’ taxes are paying benefits to current retirees. Current workers’ future benefits will be paid for by the next generation’s workers’ taxes.

Exam 7US
Question 21

a. If Social Security funds were invested in equities, a theoretical increase in returns would occur in the long run as securities have shown to have higher returns than government securities. This could reduce the costs of the plan.

b. If Social Security funds were invested in securities, then the government would have some control over private enterprise. The government would receive voting rights as owners of stock thus could exercise some control over private
companies. The government would have to create a securities valuation program to decide which securities to invest in.

Exam 7US
Question 22

a. If the rates charged those risks in the residual market are less than the associated costs, the loss is passed on to the insurers of the standard market who then build it into their costs and ultimately the premium charged to their standard market insureds. So, the good risks ultimately subsidize the bad risks (cross subsidy).

b. 1) Insurers may write less direct business to avoid funding such a large portion of the residual market.

2) It creates a moral hazard since those in the residual market aren’t really paying a premium that reflects their risk level.

c. Government could let the rates in the residual market be based on actual costs (risk based pricing). This way it would be more self-funded & cause less of a drain on the insurers & insureds in the standard market. (This addresses b (1) above.)

Exam 7US
Question 23

a. Fully funded means that if the program was terminated today the assets accumulated under the plan will be sufficient to cover the rights to benefit accrued under the plan.

b. 1. Social Security is compulsory so new workers will always enter the program and pay taxes to support it, so the plan does not need to be fully funded. Since private companies can go out of business at any time, it is important that private pensions be fully funded.

2. The taxing power of the federal government means that money can always be raised to fund any shortfall in resources. Private companies can not raise prices just to fund private pension because they will lose business to the competition and eventually go out of business, so private pension plans must always be adequately funded.

Exam 7US
Question 24

a. The contract is written by the insurer, and the insured simply purchases the policy.
b. It states that if an insured has a reasonable expectation that a type of loss will be covered, it is covered, even if the insurer did not intend to cover that type of loss.

Exam 7US
(Note from Chair: We are including two sample answers because they are significantly different but each received full credit).

Question 25 (sample 1)

The insurer must be able to justify its proposed rates by showing that the risk of hurricanes exists for all NY insureds. In general, insurers must justify all data used in support of rate changes, and this support can include the data of competitors or other states. But they must show that this data should be applicable to NY residents.

Exam 7US
Question 25 (sample 2)

If severe hurricane losses increased operating and reinsurance costs for the company, that would affect its operations in NY.

Exam 7US
Question 26

a. 1. Reduced incentive to report losses (more hit and run)
   2. Excessive deterrence may cause people to change behavior in an inefficient manner, such as choosing not to drive.

b. 1. The reduced incentive to report losses would definitely affect home owners, not harming society as much as hit and run, but bad for the homeowner.
   2. Excessive deterrence may affect home owners as well. Home owners might not do things that they otherwise would have. Can be inefficient level – loss control is good – excessive loss control can be bad.

Exam 7US
Question 27

a. Disparate treatment – the insurance company institutes policies/rating schemes intended to treat certain “protected classes” (ethnic minorities, inner city residents) differently than other classes (ie: makes insurance less available to them).

Disparate impact – Regardless of the company’s intent, it’s policies/rating schemes have the effect of treating protected classes differently.
b. Disp treatment – check to see the way territory/ethnicity is used in the company’s underwriting, marketing, and rating of policies. Disp impact – check the company’s representation in certain zip codes and among certain minority groups. Also, see whether the rates for these groups is higher.

c. HUD takes a “Disparate Impact” approach

Exam 7US
Question 28

1. There are limits on claim payments that may be lower than the original policies.
2. There is a large net worth deductible for companies who have a net worth greater than a certain amount.

Exam 7US
Question 29

a. A non-insurance company is bankrupt when its liabilities exceed its assets. Insurance company is deemed technically insolvent when its surplus falls below a minimum capital level, although its assets still exceed its liabilities.

b. The state regulator obtains a court order to take over the company.
   - Finances are stabilized through the marshalling of assets and run-off liabilities.
   - Assets are disposed off and the company is liquidated. Losses are not paid by the liquidated company, but are paid by the guaranty funds involved.

Exam 7US
Question 30

a.
   1. Prior excess wind methods used a relatively short period of time (20-30 years) to determine wind losses. It considered the wind losses during this time frame to be “normal” even though we know now that wind losses can vary dramatically during different periods of time this short.
   2. The prior model assumed that population demographics were stable. In fact, we have seen a large increase in population on the coast compared to inland.

b.
   1. The models are often proprietary “black boxes”. The modeling companies don’t want to reveal “trade secrets” so it is difficult for the regulator to determine if the method is appropriate and fair.
   2. The calculations are extremely complex and demand knowledge of meteorology, demographic changes, actuarial practices, computer science, etc.
It is difficult for regulators to determine if the calculations are correct without hiring several experts in different disciplines.

c. 1. Regulators could compare the results of model simulations with actual damages to different areas and homes in recent storms.
   2. Another way would be to approach the situation as Florida did and send a group of experts to the modeling companies to evaluate the model and then the group can report back with results without having to disclose trade secrets due to Florida’s “sunshine laws.”

Exam 7US
Question 31

a. Structural characteristics of industry indicate otherwise.

b. Better consumer information regarding rate comparison would address this better than prior approval regulation.

c. Excess profits do not exist when demand is inelastic in a competitive market.

d. Rate regulation is a crude way to provide a subsidy. Better way would be to provide subsidy in another form for high-risk insureds.

Exam 7US
Question 32

a.

   1. No-file – companies are not required to file at all and can just begin using changes.
   2. Use and File – Companies may begin using changes and make a filing to the state within an allotted number of days of use.

   3. File and Use – Companies must first file, but as soon as they file they can begin using the filing. There may or may not be an allotted waiting period of days between the file date and the date the companies can begin use.

b. Coverage filings are much more likely to be prior approval.
   - Because consumers have a much lower understanding of the insurance contract, states typically wish to protect them by reviewing these forms and approving them before use.
   - Rates in a competitive market regulate themselves and have less of a need for prior approval review.
Exam 7US
(Note from Chair: We are including two sample answers because they are significantly different but each received full credit).

Question 33 (sample 1)

Yes this would be described as a windfall excess profits statue. It is meant to adjust for a one-time event (like introduction of no-fault).

Given the great uncertainty in loading W.C. for terrorism, the excess profits (windfall) would be ideal for the state. With this the insurers could be assured they charge enough for this very uncertain load and the insureds would know that they would recoup premiums if the insurance companies charge too much (ie: if excess profits were generated).

Question 33 (sample 2)

It would not be appropriate. Terrorism risks are very difficult to estimate. It has a very low frequency and very high severity. It would be difficult to measure the return on this coverage and would be almost impossible to measure excess profit on a year to year basis.

Question 34

<table>
<thead>
<tr>
<th>Automobile Insurance Plans (AIP)</th>
<th>Reinsurance Facility (RF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Insureds are assigned by the AIP. These insureds are those who may have been rejected in the voluntary markets. They then apply to AIP and AIP assigns them to insurers based on the insurer’s voluntary marketshare in that state.</td>
<td>Insureds apply to insurer like in a normal insurance application. The insured doesn’t know if he/she would be assigned to the residual market. There is no stigma attached.</td>
</tr>
<tr>
<td>b. The insurer who is assigned will issue policies, collect premiums, and pay claims.</td>
<td>The insurer who receives the application will issue policies, collect premiums, and pay claims.</td>
</tr>
<tr>
<td>c. No sharing of loss experience. The insurer is responsible for the profit/loss associated with the risk.</td>
<td>The profit/loss is shared with all insurers based on their voluntary market share in that state.</td>
</tr>
</tbody>
</table>
Exam 7US
Question 35

a. 1869 case of Paul v. Virginia ruling that insurance was not interstate commerce and therefore it was not subject to federal antitrust laws.

b. Decision overturned 1869 ruling by deciding insurance was interstate commerce.

c. NAIC sought to appeal the decision. When appeal was denied, NAIC sought to continue state regulation resulting in passage of McCarran-Ferguson Act.

Exam 7US
Question 36

a. 1900-1943: This is the pre-McCarran-Ferguson period. Insurance was exempted under Federal Antitrust laws and ratemaking in concert was common. Rating bureaus had a lot of power and insurers’ participation was often compulsory. There wasn’t much regulation of rates on a state level either.

b. 1944-1970: After McCarran-Ferguson, states acted quickly to set up rate regulations in order to avoid Federal intervention on the regulation of insurance. Most states implemented prior approval laws. There was great adherence to bureau rates and deviations were generally discouraged.

c. 1971-present: Rating bureaus eventually developed into advisory organizations and published advisory loss costs instead. Although some laws are still prior approval, open competition has a lot of advocates. Other filing rules include file-and-use, use-and-file, and no-file. In states where open competition was allowed, there were great deviations from bureau rates.

Exam 7US
Question 37 (Taken from grader’s template)

a. Risk retention groups require a state license to operate. However, once approved in one state, they do not need a license to operate in any other states.

b. It was necessary for federal legislation because individual states can only control insurance affecting their respective states. Risk retention groups often cross state boundaries and need to be able to control the insurance coverage of all members

Exam 7US
Question 38

a. Purpose of the E & S market is to write unusual risks and exposures that the standard market is unwilling or unable to write.

b. 1. Inadequate loss reserves
   2. Alleged fraud
3. Overstated asset valuations
4. Failure of affiliates

a. Failure of affiliates – Because one of the strengths of E&S insurers comes from being members of well-diversified insurance organizations. If those affiliates fail, the E&S insurer has no recourse to guaranty fund mechanisms.

Exam 7US
Question 39

First, I’ll look at auto (<1M)

<table>
<thead>
<tr>
<th>Year</th>
<th>#suits (+% change)</th>
<th>#awards (+% change)</th>
<th>Tot Awarded</th>
<th>Paid/Award</th>
<th>Avg Award (+% change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>750 (+15%)</td>
<td>450 (+5.6%)</td>
<td>20,250</td>
<td>90%</td>
<td>45 (+6.7%)</td>
</tr>
<tr>
<td>1999</td>
<td>863 (+15%)</td>
<td>475 (+5.6%)</td>
<td>22,800</td>
<td>86%</td>
<td>48 (+6.7%)</td>
</tr>
<tr>
<td>2000</td>
<td>992 (+15%)</td>
<td>496 (+4.4%)</td>
<td>25,792</td>
<td>80%</td>
<td>52 (+8.3%)</td>
</tr>
</tbody>
</table>

The number of suits are growing 15% a year. This is about double the population growth. However, the number of awards are growing at 5.6% and 4.4% which is below the population growth. The average award is growing at +6.7% and +8.3%. This is faster than general inflation but below medical cost inflation. Therefore, the growth of auto claim payments is not out of control. The juries and/or the civil justice system are not out of control for auto lawsuits.

Now I will look at product liab (>1M)

<table>
<thead>
<tr>
<th>Year</th>
<th>#suits (+% change)</th>
<th>#awards (+% change)</th>
<th>Tot Awarded</th>
<th>Paid/Award</th>
<th>Avg Award (+% change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>100 (+25%)</td>
<td>33 (+70%)</td>
<td>66,000</td>
<td>65%</td>
<td>2,000 &gt;+15%</td>
</tr>
<tr>
<td>1999</td>
<td>125 (+25%)</td>
<td>56 (+70%)</td>
<td>128,800</td>
<td>68%</td>
<td>2,300 &gt;+15%</td>
</tr>
<tr>
<td>2000</td>
<td>219 (+75%)</td>
<td>96 (+71%)</td>
<td>283,920</td>
<td>60%</td>
<td>957.5 &gt;+28%</td>
</tr>
</tbody>
</table>

Ave. paid after appeal
1998 1,300 > 20.3%
1999 1,564 > 20.3%
2000 1,774.5 > 13.5%

The number of suits are growing at +25% and 75% for 98-99 and 99-00. Meanwhile, the number of awards are growing at least +70% a year. This is compared to a population growth of only about +7%. The average amount awarded and paid are both increasing by over 10% a year which is faster than general inflation and medical inflation. Based on these facts, the juries and/or the civil justice system are out of control for product liability.
Exam 7US  
Question 40

a. Medical threshold – the medical expenses must be above a specified amount before an injured party may sue. Descriptive standard – an injury must meet a specified standard, such as disability or disfigured, before they can sue.

b. The medical threshold may drive claimants to push up their medical costs so they can establish the right to sue.

The descriptive standard is not objective since it is subject to the opinion of what is disabled or disfigured. May not be uniform from case to case.

Exam 7US  
Question 41

a. 1. Identify companies that might be in financial trouble.  
   2. In depth review of companies accounting practices and controls.

b. An early warning system of identifying companies potentially in financial trouble.

c. Not redundant. IRIS tests are simple to calculate and only provide a very high level indication. They complement the more detailed zone exams by prioritizing which companies need review.

Exam 7US  
Question 42

a. \[
\frac{\text{Net WP} \times 100}{\text{PHS}} \leq 300.
\]

\[
\frac{\text{DWP} + \text{AWP} - \text{CUP}}{\text{PHS}} = \frac{1.6 + .3 - .2}{.525} = 323.8\text{ The company would fail the test.}
\]

b. Given the large proportion of fire and allied lines to the total book (and HO as well), the regulator may interpret the results of the Net Premium to surplus ratio test as not a cause for concern. Those are short-tailed lines, which develop to ultimate values more quickly than long-tailed lines.

Exam 7US  
Question 43

a. \[
\text{IGit} = \text{IGR} \times (\text{LR} + \text{UPR} \times (1 - \text{PPE/WP}) - \text{AB})
\]
Where most variables are “mean net”. 
IGR = Investment Gain excl. unrealized CG
\[ \text{LR + UPR + PHS + AB} \]

\[
\begin{array}{c}
\frac{900+150}{10k+8k} + \frac{800+650}{2} + \frac{3k+4k}{2} - \frac{300+260}{2} \\
\end{array}
\]

\[= \frac{1050}{9k + 725 + 3.5k - 280} \]

\[= \frac{1050}{12,945} = 8.1\% \]

\[\text{MM} \]

IGIT = (8.1\%) \( (3.5k + 275 (1 - \frac{120}{1,100} + \frac{36}{100} + \frac{45}{100} + \frac{180}{2}) - 90) \)

\[= .081 \cdot (3.5k + 275 (1 - 291/1,100) - 90) = .081 \cdot (3612) = 292.6 \text{ Med Mal} \]

\[\text{PL} \]

IGIT = (8.1\%) \( (5.5k + 450 (1 - \frac{220}{2,100} + \frac{66}{200} + \frac{70}{200} + \frac{250}{2}) - 190) \)

\[= .081 \cdot (5.5k + 450 (1 - 481/2,100) - 190) = .081 \cdot (5657) = 458.2 \text{ PL} \]

b. IGCS = IGR (LR + UPR + PHS – AB) - IGIT

PHS by line = in proportion to EP + mean net (LR + UPR)

\[\text{PHSMM} = \]

Mean net total surplus
\[\frac{3,500}{3k + 9k + 725} \]

\[\text{Eptot} \quad \text{Mean net LR total} \quad \text{mean net UPR total} \quad \text{Epmm} \quad \text{LRmm} \quad \text{APRmm} \]

\[= 3,500 \quad (4,775) = 1,313.36 \]

\[12,725 \]

\[\text{PHSPL} = \frac{3,500 \cdot (2k + 5.5k + 450)}{12,725} \]

\[= 3,500 \cdot (7,950) = 2,186.64 \]
12,725

<table>
<thead>
<tr>
<th>MM</th>
<th>Mean LR</th>
<th>Mean UPR</th>
<th>PHSmm</th>
<th>Mean Abmm</th>
<th>IGIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGcs</td>
<td>= 0.081 (3.5k + 275 + 1,313.36 – 90) – 292.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= 0.081 (4,998) – 292.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= $112.24 for med mal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| PL | IGcs | = 0.081 (5.5k + 450 + 2,186.64 – 190) – 458.2 |
| = 0.081 (7,946.64) – 458.2 |
| = $184.48 for products liability |

Reasonability check: 458.2 + 292.6 + 112.2 + 184.5 = 1047.5
≈1050 = total investment
gain (excl. unrealized CG)

Exam 7US
Question 44

Positive income, negative cash flow


You could have positive income in a situation where the paid losses are large but the incurred losses are significantly less then the paid losses due to large reserve releases, the cash flow could be negative even though there was positive income.

You could have positive income in a situation where the earned premium was significantly more than expenses and incurred losses but due to collection problems there is a delay in the cash coming in from agents and insureds which leads to a negative cash flow.

Exam 7US
Question 45

No, there is no timing or underwriting risk, nor is there any risk of significant loss.

Timing risk – since the loss will be indemnified on 12/31/03, this involves no timing risk.

Underwriting risk - Given CC’s loss history, they will incur aggregate losses in the covered layer. Therefore there is no underwriting risk.
Significant loss – Since CC is paying $475,000 at the start of the year and the maximum loss on this contract is $500,000 to be paid at the end of the year, there is no risk of a significant loss.

Exam 7US
Question 46

a. Net Income for 2002

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earned Prem</td>
<td>90</td>
</tr>
<tr>
<td>- Inc loss and LAE</td>
<td>-70</td>
</tr>
<tr>
<td>- Expenses</td>
<td>-8</td>
</tr>
<tr>
<td>+ Inv’t Income</td>
<td>+6</td>
</tr>
<tr>
<td>+ Net Realized CapGains</td>
<td>-3</td>
</tr>
<tr>
<td>- FIT</td>
<td>-3</td>
</tr>
<tr>
<td>- Div to Policy Holder</td>
<td>-5</td>
</tr>
</tbody>
</table>

7

b. Provisions for Reins → Authorized, not slow pay

Provisions = 20% overdue + 20% disputed

2002 Provisions = 20% (10 + 0) = 2
Δ = +.4
2001 Provisions = 20% (8 + 0) = 1.6

2002 Surplus = 2001 Surplus + 1000
+Net Inc 2002 +7
+Unreal Cap Gains -10
- Δ NAA -(-1) (9-10 = -1)
- Δ Treas Stock -5 (15-10=5)
- Δ Provision for Re -.4
992.6

Exam 7US
Question 47

RI Penalty for slow paying authorized RI

= Max [20% of unsecured recoverables (including amounts in dispute), 20% of overdue].

= Max [20% x [10 + 10 + 5 – 20], 20% x 7]

= 1.4
Exam 7US
Question 48

a. Products liability – Most claims are not reported for several years after they are incurred. This, too much ULAE would be allocated to the most recent AY because claim files set up in the current year would relate to claims from older AY.

b. Allocate based on the number of claims reported, closed, or outstanding for the year in which the losses were incurred.

c. Yes, since claim counts would allow ULAE to be allocated to the appropriate year’s for which claim files are established.

Exam 7US
Question 49

When the difference between yield on taxable investments and yield on non-taxable investments is large (high for taxable).

In this case, invest fully in taxable investments.

Exam 7US
(Note from Chair: We are including two sample answers because they made different assumptions about R3 but each received full credit).

Question 50 (sample 1)

a. RBC requirement for investment affiliate is as if company held directly
   PLI Financial Asset = Surplus + Liabilities = 200 + 0 = 200
   60% common stock = 120 x 0.15 RBC = 18
   40% Gov’t securities = 80 x 0 RBC = 0
   \[ R2 \text{ for PLI for PLI Home} = 18 \]

b. RBC for PLI Home = \[ R0 + \sqrt{R1^2 + R2^2 + R3^2 + R4^2 + R5^2} \]
   \[ 0 + \sqrt{10^2 + 18^2 + 40^2 + 50^2 + 30^2} \]
   (assuming \( \frac{1}{2} R3 \) already moved to R4)
   \[ 0 + \sqrt{100 + 324 + 1600 + 2500 + 900} \]
   \[ 0 + \sqrt{5424} \]
   \[ = 73.65 \]

c. RBC charge for insurance company affiliate is passed up to parent.
R0 = RBC charge for PLI Home + 25% PLI captive
= 73.65 + 25% x 50% x 190 (charge for non US affiliate is 50% surplus)
= 73.65 + 23.75
= 97.4

d. RBC for PLI Auto = 97.4 + √20^2 + 10^2 + 25^2 + 80^2 + 45^2
  = 97.4 + √400 + 100 + 625 + 6400 + 2025
  = 97.4 + √9550
  = 195.1

e. ACL = 50% RBC = .5x195.1 = 97.55

Adj Surplus
ACL

= 175
97.55

= 179% between 150% and 200%

Company Action Level: PLI Auto must submit a plan of how to either increase their surplus or decrease the charge to meet the RBC requirement (or 200% of ACL benchmark). No action is required of the State Insurance Commissioner.

Exam 7US
Question 50 (sample 2)

a. R2 → risk for equities

Charge for equities is 15% since PLI Home owns PLI Financial whose business is to invest for PLI Home we look through and calculate the charge as (.6) (200)(.15) = 18

b. RBC = R0 + √R1^2 + R2^2 + (1/2R3)^2 + (R4 = 1/2R3)^2 + R5^2

RBC PLI Home = 0 + √10^2 + 18^2 + 20^2 + (50 + 20)^2 + 30^2
= 81.4

c. PLI auto owns PLI Home 100% and is an insurer. PLI auto owns 25% of PLI captive.

R0 = investments in insurance affiliates use 81.4 for PLI Home.
50% of PLI captive’s surplus = RBC for PLI Capt.

Ro for = 81.4 + (.25)(.5)(190) = 105.15
PLI Auto

105.15 + √20^2 + 10^2 + 12.5^2 + (80+12.5)^2 + 45^2
d. RBC for PLI Auto = 211
e. Assume authorized control level is 50% of RBC since this is between 1.5 and 2.0 PLI auto must submit a plan to California commissioner, stating how it will improve its capital. No action required.

\[ 175 = 1.65 \]
\[ (211)(.5) \]

Exam 7US
Question 51

Statutory Income = 4,000,000 + 0.06 (10,000,000) + 0.05 (120,000,000) + 0.05 (40,000,000) + 1,000,000 = 13,600,000

\[ \Delta \text{UEPR} \Rightarrow \text{Current} = 27,000,000 \]
\[ \text{UEPR}_{01} + \text{Written}_{02} - \text{Earned}_{02} = \text{Current} \]

Prior = 27,000,000 + 38,000,000 – 43,000,000
\[ = 22,000,000 \]
\[ \Delta \text{UEPR} = 5,000,000 \]

\[ \Delta \text{Discount} \Rightarrow 01 \text{ Reserve} = (22 + 20 + 24) – (8 + 6 + 2) = 50 \text{ M} \]
\[ 02 \text{ Reserve} = (25 + 22 + 24 + 20) – (10 + 7 + 6 + 2) = 66 \text{ M} \]
\[ 01 \text{ Discount} = 50 – (0.88)(50) = 6 \text{ M} \]
\[ 02 \text{ Discount} = 66 – (0.85)(66) = 9.9 \text{ M} \]
\[ \Delta \text{Discount} = 3.9 \text{ M} \]

\[ \text{RTI}_{p} = \text{Statutory Income} + \text{Revenue Offset} + \Delta \text{Discount} + \text{Tax Exempt} + \text{Tax Exempt Propetion} \]
\[ = 13,600,000 + 0.2(5,000,000) + 3,900,000 – 6,000,000 + 0.15 (6,000,000) \]
\[ = 13,400,000 \]
\[ \text{Max DRD} = 13,400,000 \times 70\% = 9.38 \text{ M} \]

\[ \text{DRD} = 0.7 (2,000,000) = 1,400,000 \]

\[ \text{RIT} = 13,400,000 – 1,400,000 + (0.15)(1,400,000) = 12,210,000 \]
\[ \text{RT} = (12,210,000)(.35) = 4,273,500 \]

\[ \text{AMT1(post 90)} = \text{RT1} + 0.75 (\text{ACE} – \text{RTI}) \]
\[ = 12,210,000 + 0.75 (13,600,000 – 12,210,000) \]
\[ = 13,252,500 \]

\[ \text{AMT} = (.2)(13,252,500) = 2,650,000 \]

Income Tax = 4,273,500
a. There are three potential penalties for unauthorized re:
   1. unsecured recoverables – 100% charge
   2. On paid loss and LAE, 20% charge on all paid loss and LAE that are “in dispute”.
   3. On paid loss and LAE, 20% charge on all overdue (>90 days) paid loss and LAE (excluding those in dispute).

   Each of these (2 and 3) are limited to the amount of security, and the sum of all 3 is limited to the total of all recoverables.

b. They can avoid the first by holding security for all reinsurance recoverables. To the extent that they have reinsurance over 90 days overdue or disputed reinsurance, they cannot avoid a penalty.

c. Cat re = 10,000 – (8000 + 500) + 20% x 0 + 20% x 0
   = 1500

   Excess Liab = 15,000 – 19000 + 20% x 0 + 20% x 0
   = 0
   cap collateral at total recoverables

   Offshore Re = 8000 – 7500 + 20% (1000) + 20% (2000)
   = 500 + 200 + 400
   = 1100

   Provision for reins. = 1500 + 0 + 1100
   = 2600

d. Provision is an additional liability, so it lowers the surplus.

e. It doesn’t, unless it is considered “uncollectible”.

f. There is less regulation of them- they are more risky because they have not met the requirements for authorization.

g. Even with the full security, if the estimate of the eventual losses is too low, then the penalty is not large enough.

h. Significant credit is taken for reinsurance.

   All reinsurers are offshore. Look at ratings for them in comment.

   Ask management their opinion on collectability.

   Risk with Offshore RE. 2M overdue. 1M dispute of 8M total recoverable.
Exam 7US
Question 53

a. SAP values assets more conservatively than GAAP, in general (there are exceptions). Example, the statutory sheet does not allow furniture, vehicles, equipment to be admitted assets, but GAAP does.
b. SAP and GAAP value investments differently. Example: SAP values investment grade bonds at amortized cost. GAAP divides them into 3 types (available for sale, Trading securities, and Held to Maturity). Only Held to Maturity are valued at amortized cost; the others are valued at market value.
c. SAP recognized expenses as soon as they are incurred. GAAP expenses them in proportion of premiums earned.

Exam 7US
Question 54

DPAC = 20% x 1,000,000 = 200,000

If prem deficiency, then reduce DPAC

L/LAE + Divs + Gen Exp + DPAC – UEPR – Invt Inc

Premdef = 825,000 + 50,000 + 10% (1,000,000) + 200,000 – 1,000,000 – 5,000
= 170,000

Reduce DPAC → 200,000 – 170,000

Final DPAC = 30,000

Exam 7US
Question 55

a. Regardless of materiality must discuss
   1) Retroactive Reinsurance – if none exists, you can state such
      Should not be netted from loss reserves
   2) Collectibility of Reinsurance – State if reins is material and if collection is thought to be a potential problem in XS of the Sched F provision
   3) Asbestos/Environmental pollution and Mass Tort reserves – is there exposure, how reserved for, ALAE reserves held?
   4) Recoverables from Voluntary/involuntary market pools. Does the company set their own reserves or use pools’ estimates? Is there a booking lag? Is the lag accounted for?
b. Duties to Board of Directors
   1) To present them with a full actuarial report of the methods (from data to conclusions) underlying his report.
   2) Must make work papers available May 1 and keep for 7 yrs

Exam 7US
Question 56

a. contracts > 13 months that are not cancelable and additional premiums cannot be secured
b. the unearned premium reserves direct, ceded and net.
c. Financial guaranty