AMERICAN SOCIETY OF PENSION PROFESSIONALS & ACTUARIES
JOINT BOARD FOR THE ENROLLMENT OF ACTUARIES
SOCIETY OF ACTUARIES

Enrolled Actuaries Pension Examination, Segment B

EA-2, Segment B

Date: Tuesday, May 13, 2008
Time: 1:00 p.m. – 3:30 p.m.

INSTRUCTIONS TO CANDIDATES

1. Write your candidate number here ____________. Your name must not appear.

2. Do not break the seal of this book until the supervisor tells you to do so.

3. Special conditions generally applicable to all questions on this examination are inserted in the front of this book.

4. All questions should be answered in accordance with laws, rules and regulations in effect as of December 31, 2007.

5. This examination consists of 42 multiple-choice questions worth a total of 100 points. Questions 1-16 are True and False and are worth 1 or 2 points each. Questions 17-42 are of varying value. The point value for each question is shown in parentheses at the beginning of each question.

6. Your score will be based on the point values for the questions that you answer correctly. No credit will be given for omitted answers and no credit will be lost for wrong answers; hence, you should answer all questions even those for which you have to guess. Answer choices C, D, and E will be considered incorrect answers on True-False questions.

7. A separate answer sheet is inside the front cover of this book. During the time allotted for this examination, record all your answers on side 2 of the answer sheet. NO ADDITIONAL TIME WILL BE ALLOWED FOR THIS PURPOSE. No credit will be given for anything indicated in the examination book but not transferred to the answer sheet. Failure to stop writing or coding your answer sheet after time is called will result in the disqualification of your answer sheet or further disciplinary action.

8. Five answer choices are given with each question, each answer choice being identified by a key letter (A to E). For each question, blacken the oval on the answer sheet which corresponds to the key letter of the answer choice that you select.

9. Use a soft-lead pencil to mark the answer sheet. To facilitate correct mechanical scoring, be sure that, for each question, your pencil mark is dark and completely fills only the intended oval. Make no stray marks on the answer sheet. If you have to erase, do so completely.

10. Do not spend too much time on any one question. If a question seems too difficult, leave it and go on.

11. 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.

12. Clearly indicated answer choices in the test book can be an aid in grading examinations in the unlikely event of a lost answer sheet.

13. Use the blank portions of each page for your scratch work. Extra blank pages are provided at the back of the examination book.

14. When the supervisor tells you to do so, break the seal on the book and remove the answer sheet.

    On side 1 of the answer sheet, space is provided to write and to code candidate information. Complete Blocks A through G as follows:

    (a) in Block A, print your name and the name of this test center;

    (b) in Block B, print your last name, first name and middle initial and code your name by blackening the ovals (one in each column) corresponding to the letters of your name; for each empty box, blacken the small rectangle immediately above the "A" oval;

    (c) write your candidate number in Block C (as it appears on your ticket of admission for this examination) and write the number of this test center in Block D (the supervisor will supply the number);

    (d) code your candidate number and center number by blackening the five ovals (one in each column) corresponding to the five digits of your candidate number and the three ovals (one in each column) corresponding to the three digits of the test center number, respectively. Please be sure that your candidate number and the test center number are coded correctly;

    (e) in Block E, code the examination that you are taking by blackening the oval to the left of “Course EA-2, Segment B.”

    (f) in Block F, blacken the appropriate oval to indicate whether you are using a calculator; and

    (g) in Block G, sign your name and write today's date. If the answer sheet is not signed, it will not be graded.

    On side 2 of your answer sheet, space is provided at the top for the number of this examination book. Enter the examination book number, from the upper right-hand corner of this examination book, in the four boxes at the top of side 2 marked "BOOKLET NUMBER."

15. After the examination, the supervisor will collect this book and the answer sheet separately. DO NOT ENCLOSE THE ANSWER SHEET IN THE BOOK. All books and answer sheets must be returned. THE QUESTIONS ARE CONFIDENTIAL AND MAY NOT BE TAKEN FROM THE EXAMINATION ROOM.

MAY 2008

EA2B EXAMINATION

GENERAL CONDITIONS, TABLES, AND FORMULAS

<u>Conditions Generally Applicable to All EA-2 (Segment B) Examination Questions</u>

If applicable, the following conditions should be considered a part of the data for each question, unless otherwise stated or implied.

For purposes of this examination, IRS, Treasury and PBGC releases granting disaster relief should be ignored.

<u>General Conditions Regarding Plan Provisions</u>

(1) "Plan" or "pension plan" means a defined benefit pension plan.

(2) The plan is qualified under IRC section 401. Thus, for example, any benefit formulas should be understood to be limited by other plan provisions required by the Code.

(3) The plan is sponsored by a single employer; the sponsoring employer is a taxable entity and is not a member of a controlled group.

(4) The plan is not established or maintained in connection with a collectively bargained agreement.

*(5) Employees subject to a collective bargaining agreement are non-professional. If employees covered by a collective bargaining agreement are covered by the plan, their coverage is pursuant to that collective bargaining agreement.

(6) The plan year, the employer's limitation year, and the employer's tax year are all the calendar year.

(7) The normal retirement age is 65.

(8) Retirement pensions commence at normal retirement age and are paid monthly for life at the beginning of each month.

(9) The plan covers all active employees of the employer; there is no age or service requirement for participation. Thus, when referring to active employees, the terms "employee" and "participant" are synonymous.

(10) There are no, and never have been, mandatory or voluntary employee contributions.

(11) Service for purposes of vesting and benefit accrual is credited on the basis of time elapsed since date of hire.

(12) When the normal retirement benefit is computed as a dollar amount, or as a percentage of compensation, for each year of service, the accrued benefit is defined likewise.

(13) Actuarial equivalence is based on the mortality table and interest rate assumed for funding purposes.

(14) Qualified joint and survivor annuities and qualified preretirement survivor annuities are provided in such manner that they result in no cost to the employer.

(15) The plan has not been top-heavy in any year.

(16) The plan has not been amended since its effective date.

General Conditions Regarding Funding

(17) Any actuarial valuation encompasses not only all active employees but also retired employees, beneficiaries, and former employees entitled to vested deferred pensions.

(18) The valuation date is the first day of the plan year; i.e., participant data, present values, asset values, etc. are as of that date. Also, normal costs are payable annually, the first being due on the valuation date.

(19) Unless otherwise specified, the assumed retirement age is the normal retirement age.

(20) The terms "actuarial value of assets" and "market value of assets" mean the values developed for purposes of IRC section 412, before being adjusted as required under funding methods of the aggregate type for items such as the existing credit balance or the outstanding balances of certain bases.

(21) All actuarial assumptions are deemed "reasonable" and meet the "best estimate" criterion.

(22) The adoption date of any plan or amendment is the same as its effective date.

(23) The term "minimum required contribution" means the smallest contribution for a plan year which will prevent a funding deficiency or unpaid minimum contribution at the end of that plan year, without regard to the alternative minimum funding standard account. Amounts to be amortized are not combined or offset against one another.

(24) The employer is taxable, and all employer contributions for each prior plan year have been deducted by the employer for its tax year coincident with such plan year.

(25) The full funding limitation has never applied.

(26) The full funding limitations based on current liability shall be disregarded if sufficient information to determine such limitations is not provided.

(27) For purposes of determining the deductible limit, the unfunded current liability shall be disregarded if sufficient information to determine such liability is not provided.

(28) Unless separate current liabilities are provided, the current liability is the same for all purposes.

Miscellaneous General Conditions

(29) All plan provisions and funding comply with all temporary and final regulations under the Internal Revenue Code and ERISA, as amended through December 31, 2007

(30) For multiemployer plans, disregard any industry-specific rules.

(31) The employer has never maintained a defined contribution plan or another defined benefit plan. No employee has been covered by a defined contribution or defined benefit plan that is required to be aggregated with his employer's plans for purposes of IRC section 415.

(32) The terms "applicable mortality (table)" and "applicable interest (rate)" are as defined in IRC section 417(e)(3).

(33) For purposes of nondiscrimination testing under 401(a)(4), grouping of allocation rates or accrual rates has not been used unless there is specific reference to it.

(34) For purposes of coverage testing under IRC section 410(b), "snapshot" testing is not used and permitted disparity is not imputed.

*(35) The plan is not an applicable defined benefit plan described in IRC section 411(a)(13)(C) unless otherwise stated.

(36) Where IRC section 401(a)(17) applies, compensations do not exceed these limits unless sufficient information to apply the limits is provided.

(37) Benefits do not exceed IRC section 415 limits unless sufficient information to apply these limits is provided.

(38) Unless otherwise specified, the plan is covered by the PBGC.

(39) All union plans are collectively bargained and all union employees are subject to collective bargaining.

(40) References to law and regulation section numbers are for clarity and can be assumed to be correct.

If applicable, the preceding conditions should be considered a part of the data for each question, unless otherwise stated or implied.

LIMITS, TABLES AND FORMULAS
(Included with the 2008 EA-2 (Segment B) examination)

Compensation Limit
IRC section 401(a)(17)

Year	Limit
1989	200,000
1990	209,200
1991	222,220
1992	228,860
1993	235,840
1994-1996	150,000
1997-1999	160,000
2000-2001	170,000
2002-2003	200,000
2004	205,000
2005	210,000
2006	220,000
2007	225,000
2008	230,000

Maximum Benefit Limit
IRC section 415(b)

Year	Limit at SSRA
1983-1987	90,000
1988	94,023
1989	98,064
1990	102,582
1991	108,963
1992	112,221
1993	115,641
1994	118,800
1995-1996	120,000
1997	125,000
1998-1999	130,000
2000	135,000
2001	140,000

Year	Limit at 65
2002-2003	160,000
2004	165,000
2005	170,000
2006	175,000
2007	180,000
2008	185,000

Nondiscriminatory Classification Test
IRC section 410(b)

Nonhighly compensated employee concentration percentage	Safe harbor percentage	Unsafe harbor percentage
0-60	50.00	40.00
61	49.25	39.25
62	48.50	38.50
63	47.75	37.75
64	47.00	37.00
65	46.25	36.25
66	45.50	35.50
67	44.75	34.75
68	44.00	34.00
69	43.25	33.25
70	42.50	32.50
71	41.75	31.75
72	41.00	31.00
73	40.25	30.25
74	39.50	29.50
75	38.75	28.75
76	38.00	28.00
77	37.25	27.25
78	36.50	26.50
79	35.75	25.75
80	35.00	25.00
81	34.25	24.25
82	33.50	23.50
83	32.75	22.75
84	32.00	22.00
85	31.25	21.25
86	30.50	20.50
87	29.75	20.00
88	29.00	20.00
89	28.25	20.00
90	27.50	20.00
91	26.75	20.00
92	26.00	20.00
93	25.25	20.00
94	24.50	20.00
95	23.75	20.00
96	23.00	20.00
97	22.25	20.00
98	21.50	20.00
99	20.75	20.00

LIMITS, TABLES AND FORMULAS
(Included with the 2008 EA-2 (Segment B) examination)

Permitted Disparity Tables IRC section 401(*l*)

Annual factor in maximum excess allowance and maximum offset allowance percent

Age at benefit Commencement	SSRA 65	SSRA 66	SSRA 67	Simplified Table
70	1.209	1.101	1.002	1.048
69	1.096	0.998	0.908	0.950
68	0.996	0.907	0.825	0.863
67	0.905	0.824	0.750	0.784
66	0.824	0.750	0.700	0.714
65	0.750	0.700	0.650	0.650
64	0.700	0.650	0.600	0.607
63	0.650	0.600	0.550	0.563
62	0.600	0.550	0.500	0.520
61	0.550	0.500	0.475	0.477
60	0.500	0.475	0.450	0.433
59	0.475	0.450	0.425	0.412
58	0.450	0.425	0.400	0.390
57	0.425	0.400	0.375	0.368
56	0.400	0.375	0.344	0.347
55	0.375	0.344	0.316	0.325

FICA Taxable Wage Base

Year	Limit
1992	55,500
1993	57,600
1994	60,600
1995	61,200
1996	62,700
1997	65,400
1998	68,400
1999	72,600
2000	76,200
2001	80,400
2002	84,900
2003	87,000
2004	87,900
2005	90,000
2006	94,200
2007	97,500
2008	102,000

Key Employee Compensation IRC section 416

Year	Officer	1% owner
2003	130,000	150,000
2004	130,000	150,000
2005	135,000	150,000
2006	140,000	150,000
2007	145,000	150,000
2008	150,000	150,000

Highly Compensated Employee Compensation IRC section 414(q)

Year	Limit
1997-1999	80,000
2000-2001	85,000
2002-2004	90,000
2005	95,000
2006	100,000
2007	100,000
2008	105,000

LIMITS, TABLES AND FORMULAS
(Included with the 2008 EA-2 (Segment B) examination)

Maximum PBGC Guaranteed Life-Only Annuity at Age 65	
Year	Monthly Benefit
1999	3,051.14
2000	3,221.59
2001	3,392.05
2002	3,579.55
2003	3,664.77
2004	3,698.86
2005	3,801.14
2006	3,971.59
2007	4,125.00
2008	4,312.50

FACTORS USED TO ADJUST MAXIMUM PBGC GUARANTEED BENEFITS FOR PAYMENTS OTHER THAN AS A SINGLE LIFE ANNUITY AT AGE 65

Commencement Age	
Age	Factor
75	3.04
74	2.76
73	2.48
72	2.21
71	1.93
70	1.66
69	1.49
68	1.34
67	1.21
66	1.10
65	1.00
64	0.93
63	0.86
62	0.79
61	0.72
60	0.65
59	0.61
58	0.57
57	0.53
56	0.49
55	0.45
54	0.43
53	0.41
52	0.39
51	0.37
50	0.35
49	0.33
48	0.31
47	0.29
46	0.27
45	0.25

Form of Payment Certain & Life*	
Years	Factor
1	0.995
2	0.990
3	0.985
4	0.980
5	0.975
6	0.965
7	0.955
8	0.945
9	0.935
10	0.925

*Reduction decreases by 0.01 per year in excess of 10.

Form of Payment Joint & Contingent (J&C)		
Percent	Factor	with 10 yr Certain
50%	0.900	× 0.960
66 2/3 %	0.867	× 0.970
75%	0.850	× 0.975
100%	0.800	× 0.990

Form of Payment Joint & Survivor (J&S)	
Percent	Factor
50%	1.00
66 2/3 %	0.93
75%	0.90
100%	0.80

Age Difference For J&S and J&C Beneficiary		
Difference	Younger	Older
1	0.99	1.005
2	0.98	1.010
3	0.97	1.015
4	0.96	1.020
5	0.95	1.025
6	0.94	1.030
7	0.93	1.035
8	0.92	1.040
9	0.91	1.045
10	0.90	1.050

LIMITS, TABLES AND FORMULAS
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PBGC ADJUSTMENTS TO VESTED BENEFITS TO DETERMINE VARIABLE PREMIUM

$$\mathrm{VB}_{adj} = \mathrm{VB}_{Pay} \times 0.94^{(RIR-BIR)} + \left[\mathrm{VB}_{Nonpay} \times 0.94^{(RIR-BIR)} \times ((100+\mathrm{BIR})/(100+\mathrm{RIR}))^{(ARA-50)}\right]$$

ARA = Assumed retirement age
RIR = Required interest rate
BIR = Current Liability interest rate
VB_{adj} = Adjusted vested benefits
VB_{pay} = Retiree vested benefits
VB_{nonpay} = All other vested benefits

Data for Question 1 (1 point)

An employer sponsors both a defined benefit plan and a defined contribution plan and wishes to aggregate them for testing under IRC section 401(a)(4). The highest aggregate normal allocation rate for any HCE in the plan is 49.5%.

Consider the following statement:

The plan will satisfy the minimum aggregate allocation gateway if the lowest aggregate normal allocation rate for any NHCE in the plan is 7.5% of compensation that meets the requirements of IRC section 414(s).

Question 1

Is the above statement true or false?

(A) True

(B) False

Data for Question 2 (1 point)

Plan A provides an accrued benefit of 3.5% of average compensation for each of a participant's first 20 years of service, plus 4.5% of average compensation for all subsequent years of service.

Consider the following statement:

The plan satisfies the accrued benefit requirements of IRC section 411(b).

Question 2

Is the above statement true or false?

(A) True

(B) False

Data for Question 3 (1 point)

Consider the following statement:

Effective with the plan year beginning in 2008, a plan offering a 100% qualified joint and survivor annuity and a 50% qualified optional survivor annuity must also offer a 75% qualified optional survivor annuity.

Question 3

Is the above statement true or false?

(A) True

(B) False

Data for Question 4 (1 point)

An employer sponsors defined benefit Plan A, which covers salaried employees only. The employer suspends benefit accruals in Plan A effective December 31, 2006. A partial plan termination is deemed to occur on that date. The employer then establishes a new defined benefit Plan B that covers all employees effective January 1, 2008.

Consider the following statement:

Vesting service in Plan B must include all years of employment since the effective date of Plan A.

Question 4

Is the above statement true or false?

(A) True

(B) False

Data for Question 5 (1 point)

A plan requires employee contributions as a condition of participation. Smith’s normal retirement date is 12/31/2026, and the determination date is 12/31/2008.

Consider the following statement:

Smith's accrued benefit derived from employee contributions is determined by converting Smith’s accumulated contributions with interest as of 12/31/2008 to an annual benefit at 12/31/2026 utilizing the interest rates used by the plan under IRC section 417(e)(3) as of 12/31/2008.

Question 5

Is the above statement true or false?

(A) True

(B) False

Data for Question 6 (1 point)

Consider the following statement:

In the case of a participant who commenced benefits upon reaching normal retirement age and continued to accrue additional benefits due to pay and service after normal retirement age, such participant's benefit must be reduced by the actuarial equivalent of prior distributions.

Question 6

Is the above statement true or false?

(A) True

(B) False

Data for Question 7 (1 point)

Consider the following statement:

Employer A has 30 employees of whom 20 are participants as of the first day of the premium payment year. There is a per-participant cap on the PBGC variable-rate premium equal to $5 multiplied by the number of participants on the premium snapshot date.

Question 7

Is the above statement true or false?

(A) True

(B) False

Data for Question 8 (1 point)

In 2008 it is discovered that a plan sponsor failed to pay a PBGC premium for the 2003 plan year and the PBGC issues a notice that there is a premium delinquency.

Consider the following statement:

The maximum late payment penalty charge for this unpaid premium is 100% of the original premium due.

Question 8

Is the above statement true or false?

(A) True

(B) False

Data for Question 9 (1 point)

Consider the following statement:

The PBGC may institute proceedings to terminate a plan if it finds that the possible long-run liability to the PBGC with respect to the plan may reasonably be expected to increase unreasonably if the plan is not terminated.

Question 9

Is the above statement true or false?

(A) True

(B) False

Data for Question 10 (1 point)

Consider the following statement:

As part of the standard plan termination process, the plan administrator is required to issue a Notice of Plan Benefits to all participants, including those currently in pay status.

Question 10

Is the above statement true or false?

(A) True

(B) False

Data for Question 11 (1 point)

Consider the following statement:

For a participant in pay status on the date of plan termination, PBGC guaranteed benefit adjustments are based on the participant's age at plan termination, not at benefit commencement.

Question 11

Is the above statement true or false?

(A) True

(B) False

Data for Question 12 (1 point)

Consider the following statement:

A contributing employer who withdraws from a multiemployer pension plan and who has unfunded vested benefits under $50,000 may have no withdrawal liability obligation.

Question 12

Is the above statement true or false?

(A) True

(B) False

Data for Question 13 (1 point)

Consider the following statement:

In accordance with IRC Section 4980, a Qualified Replacement Plan must cover at least 95% of the active participants in a terminated plan who remain as employees of the employer.

Question 13

Is the above statement true or false?

(A) True

(B) False

Data for Question 14 (2 points)

On 11/8/2008, an amendment is adopted that increases accrued benefits for all participants and terminates the plan effective 12/31/2008. The value of the increase in benefits distributed to participants due to the amendment is $50,000. The surplus assets remaining after distribution of all plan benefits is $500,000. The employer transfers $100,000 of the surplus assets to a 401(k) plan covering all active employees. The remaining $400,000 reverts to the employer.

Consider the following statement:

The employer must pay an excise tax of 50% of the reversion amount.

Question 14

Is the above statement true or false?

(A) True

(B) False

Data for Question 15 (1 point)

Consider the following statement:

In selecting the safest available annuity provider for the purpose of making benefit distributions, a plan fiduciary may satisfy the DOL's prudence requirements by selecting an insurance provider based solely on the ratings provided by an insurance rating service.

Question 15

Is the above statement true or false?

(A) True

(B) False

Data for Question 16 (1 point)

Jones is an attorney who provides annual services to a plan, is not a participant or beneficiary of the plan, and is not an employee of the plan sponsor.

The plan loans $10,000 to Jones. Jones provides adequate security for the loan, which bears a reasonable interest rate. In accordance with the terms of the loan agreement, Jones repays the loan in full exactly one year after the date of the loan.

Consider the following statement:

Absent an exemption under ERISA section 408, the loan is a prohibited transaction.

Question 16

Is the above statement true or false?

(A) True

(B) False

Data for Question 17 (2 points)

Selected data for all participants of Plan A:

Date	Number of active participants	Number of retired participants
1/1/2006	3050	500
1/1/2007	2950	475
12/31/2007	X	400

As of 12/31/2007 the plan does not qualify for a waiver of a reportable event as defined under ERISA section 4043.

X = the smallest possible number of active participants on 12/31/2007 without triggering a reportable event.

Question 17

In what range is X?

(A) Less than 2,250

(B) 2,250 but less than 2,300

(C) 2,300 but less than 2,350

(D) 2,350 but less than 2,400

(E) 2,400 or more

Data for Question 18 (2 points)

Type of plan: Multiemployer.

Plan effective date: 1/1/1985.

Normal retirement benefit: 1.75% of final average salary times years of service.

Data for participant Smith:

Date of birth	1/1/1958
Years of service at 1/1/2008	20
Average salary at 1/1/2008	$35,000

Question 18

In what range is the monthly benefit guaranteed by the PBGC for Smith at 1/1/2008?

(A) Less than $575

(B) $575 but less than $650

(C) $650 but less than $725

(D) $725 but less than $800

(E) $800 or more

Data for Question 19 (5 points)

A plan sponsor maintains a defined contribution plan and a defined benefit plan which are aggregated for IRC section 401(a)(4) testing.

Defined benefit plan provisions:

Normal form	Life only
Optional form of benefit	Qualified joint and 100% survivor annuity (QJSA)
Normal retirement age	65
Early retirement age	62
Early retirement reduction	2% at age 64, 6% at age 63, 12% at age 62

Life annuity to QJSA survivor conversion factor: 0.90

Nondiscrimination testing methods and assumptions:

Testing method	Benefits basis
Measurement period	Current plan year
Testing age	65
Testing date	12/31/2008
Standard interest rate	8.5%

Selected annuity values using testing assumptions:

Age	Life annuity	QJSA
62	8.94	10.60
63	8.76	10.48
64	8.57	10.35
65	8.38	10.22

Data for employee Smith for the current plan year:

Date of birth	Testing compensation	Profit sharing contribution	Employee 401(k) deferral	Increase in annual accrued benefit
12/31/1948	$50,000	$4,000	$1,500	$5,000

Question 19

In what range is Smith's aggregate most valuable accrual rate?

(A) Less than 12.91%

(B) 12.91% but less than 13.41%

(C) 13.41% but less than 13.91%

(D) 13.91% but less than 14.41%

(E) 14.41% or more

Data for Question 20 (5 points)

Plan provisions:

Normal form	Life annuity
Normal retirement age	65
Early retirement eligibility	Age 60
Early retirement benefit	Accrued benefit, reduced 3% per year from age 65
Optional Forms of Payment	50% qualified joint and survivor annuity (QJSA)
Life annuity to QJSA conversion rate	0.98

Special early retirement window for 2008

Eligibility	All participants age 60 by 12/31/2008
Early retirement benefit	Deferred annuity, commencing at age 64, equal to 100% of the accrued benefit; benefits commencing prior to age 64 are unchanged

Nondiscrimination testing methods and assumptions:

Testing method	Benefit basis
Measurement period	Current plan year
Testing age	65
Testing date	12/31/2008
Standard interest rate	8.5%

Selected annuity values using testing assumptions:

Age	Life annuity	QJSA
63	8.76	9.44
64	8.57	9.27
65	8.38	9.09

Data for employee Smith:

Date of birth	12/31/1945
2008 testing compensation	$50,000
Increase in 2008 accrued benefit payable at age 65	$625

Question 20

In what range is Smith’s most valuable accrual rate reflecting the early retirement window?

(A) Less than 1.45%

(B) 1.45% but less than 1.50%

(C) 1.50% but less than 1.55%

(D) 1.55% but less than 1.60%

(E) 1.60% or more

Data for Question 21 (4 points)

A company sponsors two qualified plans, a defined benefit plan and a 401(k) plan.

Selected plan provisions for 401(k):

Normal retirement age	62
Plan effective date	1/1/2008
ADP testing	Prior year testing

Normal retirement age in the defined benefit plan is 65.

Nondiscrimination testing methods and assumptions:

Testing method	Benefits basis
Measurement period	Current plan year
Testing date	12/31/2008
Standard interest rate	8.5%

Selected employee data as of 12/31/2008:

	Age at 12/31/2008	Profit sharing allocation	401(k) deferral	Monthly defined benefit plan accrual	Testing compensation
NHCE1	25	$X	$1,000	$50	$50,000
HCE1	55	35,000	5,000	1,000	100,000
HCE2	65	35,000	5,000	1,000	100,000

Selected annuity factors using testing assumptions:

$$\ddot{a}_{62}^{(12)} = 9.52$$

$$\ddot{a}_{65}^{(12)} = 9.03$$

X = the smallest allocation that will allow the plans to pass the average benefit percentage test.

Question 21

In what range is X?

(A) Less than $750

(B) $750 but less than $1,500

(C) $1,500 but less than $2,250

(D) $2,250 but less than $3,000

(E) $3,000 or more

Data for Question 22 (3 points)

Employer sponsors two plans: Plan A covers salaried employees and Plan B covers hourly employees.

Salaried employees plan eligibility: Age 21 and 1 year of service
Hourly employees plan eligibility: Age 18 and 6 months of service

Employee data for the 2008 plan year:

	Salaried		Hourly	
	HCEs	NHCEs	HCEs	NHCEs
Employees at least age 21 with at least 1 year of service	34	90	2	275
Employees at least age 21 with at least 6 months of service but less than 1 year of service	2	10	5	25
Employees at least age 18 but less than age 21with at least 6 months of service but less than 1 year of service	1	50	2	100
Employees under age 18 and/or with less than 6 months of service	3	25	1	350
Employees excluded by classification that are otherwise non-excludable	0	25	0	50
Total employees	40	200	10	800

The plan sponsor elects to aggregate the salaried and hourly plans for purposes of the coverage requirement of IRC section 410(b).

Otherwise excludable employees are not tested separately.

Question 22

In what range is the ratio percentage for the 2008 plan year?

(A) Less than 85%

(B) 85% but less than 90%

(C) 90% but less than 95%

(D) 95% but less than 100%

(E) 100% or more

Data for Question 23 (4 points)

An employer maintains a defined benefit plan in which all salaried employees and some hourly employees are eligible to participate.

All salaried employees are eligible to participate on the 1/1 or 7/1 coincident with or following the completion of one year of service.

The plan provides a monthly benefit equal to 1¢ for each hour worked.

Consider the following data for all employees during 2007:

Number of employees	Date of hire	Hours worked	Collectively bargained	End of year status	Hourly/salaried
12	1/1/2006	2000	yes	active	salaried
7	1/1/2006	2000	no	active	salaried
4	1/1/2006	750	no	terminated	salaried
10	1/1/2006	400	no	terminated	salaried
5	1/1/2007	2000	no	active	salaried
80	1/1/2006	2000	no	active	hourly

X = the minimum number of hourly employees needed to benefit in the plan in order to satisfy IRC section 401(a)(26) for 2007.

Question 23

In what range is X?

(A) Less than 16

(B) 16 but less than 18

(C) 18 but less than 20

(D) 20 but less than 22

(E) 22 or more

Data for Question 24 (2 points)

Selected plan provisions:

Plan type	Applicable defined benefit plan under IRC section 411(a)(13)
Effective date	1/1/2004

Vesting schedule as of 12/31/2007

Years of service	Vested percentage
Less than 2	0%
2	40%
3	60%
4	80%
5 or more	100%

Data for plan participants as of 1/1/2008:

Name	Hypothetical account balance	Years of service
Smith	$10,000	1
Jones	20,000	2
Brown	30,000	3

Question 24

In what range is the aggregate vested account balance for all plan members as of 1/1/2008?

(A) Less than $25,000

(B) $25,000 but less than $30,000

(C) $30,000 but less than $35,000

(D) $35,000 but less than $40,000

(E) $40,000 or more

Data for Question 25 (3 points)

An employer sponsors both a defined benefit plan and a defined contribution plan. Both plans are effective 1/1/2002.

The plans determine vesting service by hours worked in the most restrictive method permitted by law.

The plans have not been top heavy in any year. Both plans use the statutory graded vesting schedule and provide for the immediate payment of vested benefits upon termination of employment.

Selected data for participant Smith:

Date of birth	1/1/1985
Date of hire	1/1/2002
Date of termination	3/1/2008
Defined contribution plan account balance at 3/1/2008	\$10,000
Defined benefit plan lump sum benefit prior to vesting at 3/1/2008	\$3,000

Year	Hours worked
2002	2080
2003	2080
2004	2080
2005	2080
2006	1100
2007	650
2008	100

X = the aggregate lump sum benefit payable to Smith from both plans at 3/1/2008.

Question 25

In what range is X?

(A) Less than \$6,250

(B) \$6,250 but less than \$7,350

(C) \$7,350 but less than \$8,450

(D) \$8,450 but less than \$9,550

(E) \$9,550 or more

Data for Question 26 (4 points)

Selected plan provisions:

Early retirement eligibility	Age 60
Early retirement reduction	4% per year benefit commencement precedes age 65
Joint and 100% survivor factor	95% plus 0.5% per year benefits start prior to age 65
Pre-retirement survivor benefit	The survivor portion of a joint and 100% survivor annuity equal to what the participant would have received had they elected the joint and 100% survivor annuity on the later of the earliest possible retirement date or the participant's date of death

The reduction for death benefits applied during the period the participant can elect to waive pre-retirement death benefits is 0.12% per year.

Data for participant Smith:

Age at participation	25
Age at marriage	22
Age at death	58
Spouse's age at Smith's death	57
Accrued benefit prior to reduction for pre-retirement death coverage	$20,000

The pre-retirement death benefit coverage was never waived.

X = the amount of the survivor's benefit commencing at the earliest date available.

Question 26

In what range is X?

(A) Less than $15,050

(B) $15,050 but less than $15,150

(C) $15,150 but less than $15,250

(D) $15,250 but less than $15,350

(E) $15,350 or more

Data for Question 27 (2 points)

Consider the following statements:

I. If a participant waives the qualified joint and survivor annuity option with spousal consent, the participant may, without further spousal consent, change the optional form of payment elected provided the new election is made within the allowable election period.

II. A pension plan offering a 50% joint and survivor annuity as the qualified joint and survivor annuity must offer a 75% joint and survivor annuity as the qualified optional survivor annuity.

III. A pension plan cannot allow participants more than 90 days prior to the annuity start date to waive the qualified joint and survivor option.

Question 27

Which, if any, of the above statement(s) is (are) true?

(A) None

(B) I only

(C) II only

(D) III only

(E) The correct answer is not given by (A), (B), (C), or (D) above

Data for Question 28 (4 points)

Selected plan provisions:

Early retirement eligibility	Age 62 and 30 years of service
Early retirement benefit	Accrued benefit without reduction
QJSA	50% joint and survivor annuity
Optional form of benefit	75% joint and survivor annuity
Conversion factor from life annuity to 50% QJSA	0.95

No benefits are payable before early retirement eligibility is met.

Nondiscrimination testing methods and assumptions:

Testing method	Benefits basis
Measurement period	Current plan year
Testing age	65
Testing date	12/31/2008
Standard interest rate	8%

Selected monthly annuity values using testing assumptions:

Age	Life annuity	QJSA
61	107.444	116.650
62	105.237	114.622
63	102.982	112.533
64	100.684	110.385
65	98.350	108.182

Data for plan participant Smith:

Date of birth	12/31/1947
Date of hire	12/31/1980
Normal accrual rate as of 12/31/2008	5%

Question 28

In what range is Smith's most valuable accrual rate?

(A) Less than 5.6%

(B) 5.6% but less than 6.2%

(C) 6.2% but less than 6.8%

(D) 6.8% but less than 7.4%

(E) 7.4% or more

Data for Question 29 (3 points)

A professional service employer sponsors a plan that was covered by the PBGC on 1/1/2005.

Employees are eligible to participate on each 1/1 and 7/1 coincident with or next following the completion of one year of service.

Data for Company A:

Employees (plan participants) as of 12/31/2005	15
New hires during 2005	0
New hires during the 1st half of 2006	4
New hires during the 2nd half of 2006	2
New hires during the 1st half of 2007	0
New hires during the 2nd half of 2007	5
New hires during the 1st half of 2008	0

There have been no terminations since 1/1/2005.

Consider the following statements:

I. The plan is no longer a PBGC covered plan beginning in 2006.

II. The plan is eligible for the variable-rate premium cap for the premium period beginning in 2008.

III. The participant count for purposes of the flat-rate premium for the premium period beginning in 2008 is 19.

Question 29

Which, if any, of the above statement(s) is (are) true?

(A) None

(B) I only

(C) II only

(D) III only

(E) The correct answer is not given by (A), (B), (C), or (D) above.

Data for Question 30 (3 points)

Consider the following scenarios and statements with respect to PBGC premium requirements:

I. Smith and Jones are equal owners of a professional service corporation, which maintains a plan covering 35 employees. On 7/31/2006, Smith retires and sells his entire interest to Jones who continues to maintain the plan. On 12/31/2007, the professional service corporation has 21 active employees and no terminated participants receiving or entitled to receive plan benefits.

Statement I
The plan is not required to pay a PBGC premium for the 2008 plan year.

II. An employer maintains a plan covering employees in Divisions A and B. Employees in Division C are not covered. On 1/1/2008, there are 9 employees in Division A, 14 employees in Division B, and 5 employees in Division C.

Statement II
The plan qualifies for the variable-rate premium cap for small employers in 2008.

III. Brown maintains a plan for his sole proprietorship. On 8/1/2007, Brown hires Green and establishes a partnership that continues to maintain the plan covering all partnership employees. Brown owns 95% of the partnership and Green owns 5%. Brown and Green are not related and the partnership has no other employees.

Statement III
The plan is not required to pay a PBGC premium for the 2008 plan year.

Question 30

Which, if any, of the above statement(s) is (are) true?

(A) None

(B) I only

(C) II only

(D) III only

(E) The correct answer is not given by (A), (B), (C), or (D) above.

Data for Question 31 (3 points)

Plan requires at least 1000 hours worked in a plan year in order to earn an increase in accrued benefit.

Plan eligibility is age 21 and one year of service.

Data for all employees in 2008:

Status of participants	Number
Active with 1000 hours or more	36
Active with 501-999 hours	20
Active with 500 hours or fewer	5
Terminated with 1000 hours or more	4
Terminated with 501-999 hours	5
Terminated with 500 hours or fewer	3

Participants include both HCEs and NHCEs.

Status of other employees	
Excluded due to age and service requirements	10
Excluded due to membership in collective bargaining unit	20
Excluded due to job classification; otherwise met eligibility requirements	45

If necessary to pass the participation requirement under IRC section 401(a)(26), the plan sponsor will execute a corrective amendment effective 1/1/2008 to allow some of the employees currently excluded because of job classification to become plan participants.

X = the minimum number of employees who must become participants under the plan amendment.

Question 31

In what range is X?

(A) Less than 4

(B) 4 or 5

(C) 6 or 7

(D) 8 or 9

(E) 10 or more

Data for Question 32 (2 points)

Consider the following information:

Total participants	Unfunded vested benefit liability at 1/1/2008
20	$400,000

Question 32

In what range is the total PBGC premium due for the 2008 plan year?

(A) Less than $2,500

(B) $2,500 but less than $3,000

(C) $3,000 but less than $3,500

(D) $3,500 but less than $4,000

(E) $4,000 or more

Data for Question 33 (2 points)

A professional service employer adopted Plan A effective 1/1/2005.

No credit for benefit service was given for service prior to the effective date.

The employer only hires employees on 1/1.

No terminated employees have been rehired

Employee data:

Date	Number of actives	Number of terminated vesteds
12/31/2004	30	0
1/1/2005	24	0
12/31/2005	13	11
1/1/2006	23	11
12/31/2006	20	7
1/1/2007	29	7
12/31/2007	15	0
1/1/2008	20	0

X = the sum of the participant counts used for Plan A's flat rate premiums from 2005 through 2008.

Question 33

In what range is X?

(A) Less than 40

(B) 40 but less than 50

(C) 50 but less than 60

(D) 60 but less than 70

(E) 70 or more

Data for Question 34 (4 points)

Plan termination date: 12/31/2008.

Normal retirement benefit payable as a 10 year certain & life annuity:

Effective 1/1/2002 (adopted 3/1/2002)	$55 per month for each year of service
Effective 1/1/2005 (adopted 3/1/2005)	$70 per month for each year of service
Effective 1/1/2008 (adopted 3/1/2008)	$90 per month for each year of service

Data for non-owner participant Smith:

Date of birth	12/31/1949
Date of hire	12/31/1974
Date of benefit commencement	12/31/2008
Form of payment	10 year certain & life annuity
Final 5-year average compensation	$42,000

Early retirement reduction factor: Accrued benefit reduced by 5% for each year that benefits commence before age 62

Question 34

In what range is the PBGC guaranteed monthly benefit for Smith?

(A) Less than $1,815

(B) $1,815 but less than $1,840

(C) $1,840 but less than $1,865

(D) $1,865 but less than $1,890

(E) $1,890 or more

Data for Question 35 (4 points)

Plan A is undergoing a distress termination.

Plan A effective date: 1/1/2000.

Selected plan provisions:

Plan termination date	12/31/2008
Benefit formula	8% of average of highest three consecutive years of compensation, multiplied by total years of service

There have been no amendments to the benefit formula since the plan's inception.

Data for plan participant Smith:

Date of birth	12/31/1943
Date of hire	12/31/1996
Date of retirement	12/31/2008
Form of payment	Life annuity

Year	Ownership percentage in plan sponsor	Compensation
1997	0%	$25,000
1998	0	25,000
1999	0	30,000
2000	15	25,000
2001	20	51,000
2002	30	37,000
2003	40	57,000
2004	50	52,000
2005	55	47,000
2006	0	45,000
2007	0	30,000
2008	0	50,000

Question 35

In what range is the PBGC guaranteed monthly benefit for Smith?

(A) Less than $3,720

(B) $3,720 but less than $3,840

(C) $3,840 but less than $3,960

(D) $3,960 but less than $4,080

(E) $4,080 or more

Data for Question 36 (4 points)

Plan effective date: 1/1/2000.

Plan termination date: 12/31/2008.

Plan benefit formula:	Effective	Adopted
$100 per month for each year of service	1/1/2000	1/1/2000
$110 per month for each year of service	1/1/2006	1/1/2006
$150 per month for each year of service	1/1/2007	12/31/2007

Data for participants:

	Smith	Mr. Jones	Mrs. Jones
Age on plan termination date	65	65	65
Date of hire	1/1/2003	1/1/2000	1/1/2004
Ownership %	10	70	20
Vesting %	100	100	100
Status	Retired	Retired	Retired
Form of payment	Life annuity	Life annuity	Life annuity

Mr. and Mrs. Jones are married to each other.

Question 36

In what range is the total of the guaranteed monthly benefits for the three participants?

(A) Less than $2,225

(B) $2,225 but less than $2,300

(C) $2,300 but less than $2,375

(D) $2,375 but less than $2,400

(E) $2,400 or more

Data for Question 37 (2 points)

An employer terminates Plan A which covered all members of its workforce.

Plan A was amended on the plan's termination date to provide a pro-rata benefit increase that resulted in an increase in benefit liability of $80,000.

Plan assets before the transfer of assets:	$5,500,000.
Benefit liabilities ignoring plan amendment:	$5,000,000.

At the time of plan termination, all participants are actively employed.

Amount transferred to Qualified Replacement Plan:	$110,000.

X = the excise tax under IRC section 4980 payable on the reversion of plan assets to the employer.

Question 37

In what range is X?

(A) Less than $60,000

(B) $60,000 but less than $120,000

(C) $120,000 but less than $180,000

(D) $180,000 but less than $240,000

(E) $240,000 or more

Data for Question 38 (4 points)

Type of Plan: Multiemployer.

Withdrawal liability method: Rolling Five (One Pool) with mandatory de minimis rule.

Selected plan data:

Year	Employer A contributions	Total plan contributions	Total unfunded vested benefits as of 12/31
2002	$200,000	$1,800,000	$0
2003	220,000	2,200,000	0
2004	240,000	1,800,000	0
2005	250,000	2,420,000	0
2006	180,000	1,980,000	20,000,000
2007	240,000	2,100,000	20,000,000
2008	180,000	2,230,000	20,700,000

X = withdrawal liability if Employer A had withdrawn on 12/1/2007.

Y = withdrawal liability if Employer A withdraws on 12/1/2008.

Question 38

In what range is X - Y?

(A) Less than - $8,000

(B) - $8,000 but less than $0

(C) $0

(D) More than $0 but less than $8,000

(E) $8,000 or more

Data for Question 39 (4 points)

Type of plan: Multiemployer.

Withdrawal liability method: Rolling Five (One Pool).

Selected plan data:

Year	Employer A contribution base units
1998	875,000
1999	1,365,000
2000	885,000
2001	815,000
2002	825,000
2003	905,000
2004	785,000
2005	268,000
2006	265,000
2007	210,000
2008	250,000

In 2007, Employer A incurs a partial withdrawal from the plan due to a 70% contribution decline.

If Employer A had incurred a complete withdrawal, the total withdrawal liability would be $950,000.

Question 39

What is Employer A's withdrawal liability amount due to the partial withdrawal in 2007?

(A) Less than $510,000

(B) $510,000 but less than $570,000

(C) $570,000 but less than $630,000

(D) $630,000 but less than $690,000

(E) $690,000 or more

Data for Question 40 (4 points)

An overfunded plan is terminated. In accordance with IRC section 4980, the plan is amended to increase benefits by the minimum amount necessary to reduce the excise tax rate on the reversion.

There are four participants in the plan, none of whom are or ever were highly compensated employees. All elect lump sums as their form of distribution.

Selected information for the participants, shown before the amendment is executed:

	Smith	Jones	Brown	Green
Status	Active	Active	Active	Terminated vested
Lump sum value of accrued benefit	$1,300,000	$800,000	$1,200,000	$400,000
Maximum lump sum value of accrued benefit under IRC section 415	1,330,000	1,200,000	1,350,000	650,000

The market value of plan assets is $4,600,000.

X = the minimum amount of the increase in the value of Brown's benefit due to the plan amendment.

Question 40

In what range is X?

(A) Less than $60,000

(B) $60,000 but less than $72,000

(C) $72,000 but less than $84,000

(D) $84,000 but less than $96,000

(E) $96,000 or more

Data for Question 41 (2 points)

Consider the following statements regarding prohibited transactions and associated excise taxes under ERISA section 4975:

I. Form 5330 is due by the last day of the 7^{th} month following the taxable year unless an extension is obtained by filing Form 5558.

II. An extension of up to 6 months to pay the excise tax after the due date (without extension) of Form 5330 may be granted with an approved Form 5558.

III. For certain prohibited transactions involving sales, exchanges, leases, loans, services, and the use of plan assets, there is an abatement of all excise taxes if the transactions are corrected within 14 days of discovery.

Question 41

Which, if any, of the above statement(s) is (are) true?

(A) None

(B) I and II only

(C) I and III only

(D) II and III only

(E) The correct answer is not given by (A), (B), (C), or (D) above.

Data for Question 42 (2 points)

Consider the following acts relative to an enrolled actuary:

I. Failure to provide the plan administrator upon appropriate request supplemental advice or explanation relative to a Schedule SB of Form 5500 signed by such enrolled actuary.

II. Indictment for any criminal offense under the laws of the United States, any State thereof, the District of Columbia, or any territory or possession of the United States, which evidence fraud, dishonesty, or breach of trust.

III. Knowingly filing false or altered documents, affidavits, financial statements or the papers on matters relating to employee benefits plans or actuarial services.

Question 42

Which, if any, is (are) grounds for suspension or termination of enrollment?

(A) I and II only

(B) I and III only

(C) II and III only

(D) I, II, and III

(E) The correct answer is not given by (A), (B), (C), or (D) above

Exam EA-2B
Spring 2008
ANSWER KEY

Question #	*Answer*		*Question #*	*Answer*
1	**B**		**25**	**B**
2	**A**		**26**	**C**
3	**B**		**27**	**C**
4	**B**		**28**	**C**
5	**A**		**29**	**D**
6	**B**		**30**	**A**
7	**B**		**31**	**C**
8	**A**		**32**	**B**
9	**A**		**33**	**B**
10	**A**		**34**	**B**
11	**A**		**35**	**A**
12	**A**		**36**	**A**
13	**A**		**37**	**B**
14	**B**		**38**	**A**
15	**B**		**39**	**D**
16	**A**		**40**	**C&D***
17	**D**		**41**	**C**
18	**C**		**42**	**B**
19	**D**			
20	**C**			
21	**B**			
22	**A**			
23	**A**			
24	**D**			

* Information was inadvertently omitted from the question; two alternative answers are possible depending on the information inferred by the candidate.