

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 11, 2010  
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, 2009.
5. This examination consists of 47 True and False or multiple-choice questions worth a total of 100 points. Questions 1-21 are True/False and Questions 22-47 are multiple-choice. 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.**

**Answer Key EA-2B May 2010**

**May 2010 EA2B: Questions 18, 33, and 45 were deemed to be defective as they inadvertently tested material that was not on the May 2010 EA2B syllabus. Consequently, questions 18, 33, and 45 were scored as correct for all candidates in the grading process.**

<b>Question</b>	<b>Answer</b>		<b>Question</b>	<b>Answer</b>
1	B		26	C
2	A		27	A
3	A		28	B
4	B		29	C
5	B		30	C
6	B		31	B
7	B		32	D
8	B		33	
9	B		34	C
10	B		35	C
11	A		36	B
12	B		37	B
13	A		38	C
14	A		39	C
15	B		40	D
16	A		41	D
17	A		42	B
18			43	E
19	A		44	E
20	B		45	
21	B		46	D
22	D		47	D
23	D			
24	C			
25	A			

**\*\*BEGINNING OF EXAMINATION\*\***

Data for Question 1 (1 point)

The collective bargaining agent for a union covered in a multiemployer defined benefit plan sends an email to the actuary who signed the 2009 Schedule MB requesting information regarding the assumptions reported on the Schedule MB.

Consider the following statement:

The actuary must comply with this request.

Question 1

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 2 (1 point)

In conjunction with a withdrawal from a multiemployer defined benefit plan, an alternative allocation method is suggested to the PBGC for allocating unfunded vested benefits.

Consider the following statement:

The PBGC can approve this alternative method.

Question 2

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 3 (2 points)

A defined benefit plan terminates on 12/31/2010. The plan covers only active participants.

Prior to any amendments, plan assets are 150% of liabilities measured on a termination basis.

Upon termination the employer adopts an amendment to increase all benefits by 15% effective as of the date of termination.

The plan sponsor does not establish a new qualified plan.

Consider the following statement:

Any reversion to the plan sponsor on account of the plan termination will be subject to a 20% excise tax.

Question 3

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 4 (1 point)

Consider the following statement for a collectively bargained plan that has 1,000 or more participants:

The Annual Funding Notice has to be furnished only to plan participants, beneficiaries, and the PBGC.

Question 4

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 5 (1 point)

Consider the following statement:

A lump sum payment representing the return of mandatory employee contributions is exempt from IRC section 436 benefit restrictions.

Question 5

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 6 (1 point)

Normal retirement benefit: \$1,000 per month reduced proportionally for less than 30 years of service at normal retirement age.

Plan entry date: Later of age 21 and one year of service.

Accrual method: Fractional based on years of participation service.

Consider the following statement:

The plan benefit formula meets the nondiscrimination safe harbor requirements for plans using the fractional accrual rule.

Question 6

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 7 (1 point)

Vesting schedule:

<u>Years of service</u>	<u>Vested percentage</u>
1	0%
2	20%
3	40%
4	60%
5	80%
6	100%

Consider the following statement:

The above vesting schedule satisfies the vesting requirements for an “applicable defined benefit plan” under IRC section 411(a)(13)(C).

Question 7

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 8 (1 point)

Two multiemployer plans merge.

The new combined multiemployer plan is underfunded.

Consider the following statement:

PBGC Form 10 must be filed for a reportable event.

Question 8

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 9 (1 point)

A defined benefit plan covers 175 participants.

An amendment is adopted to freeze benefit accruals effective 12/31/2010.

Consider the following statement:

The plan sponsor must notify participants about the cessation of benefit accruals no later than 12/16/2010.

Question 9

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 10 (1 point)

A company has had more than 1,000 employees since its inception in 1970. The company has data that shows that over the company's history, the average retirement age for its employees is 58, which is significantly lower than that of the industry as a whole.

Consider the following statement:

Based on the company's history, the plan may use 58 as the normal retirement age.

Question 10

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 11 (1 point)

A participant terminated employment on January 1, 2010 and was not eligible for either normal or early retirement on that date. Under the terms of the plan, the participant is entitled to an immediate lump sum distribution of \$10,000. The plan is not subject to benefit restrictions under IRC section 436.

Consider the following statement:

The plan must offer the participant an immediate annuity form of payment in addition to the lump sum distribution option.

Question 11

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 12 (1 point)

Plan A is proceeding with a standard termination.

Five participants, each of whom has vested benefits exceeding \$5,000, have changed home addresses, but left no forwarding address.

After a diligent search, the plan administrator is unable to locate any of them.

Consider the following statement:

The company will be allowed to set aside money for the missing participants in an irrevocable trust.

Question 12

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 13 (1 point)

A plan sponsor has filed for bankruptcy under Chapter 11 on 7/1/2010. The plan terminates in a distress termination while the sponsor is in bankruptcy.

Consider the following statement:

The PBGC termination premium applies to this plan.

Question 13

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 14 (1 point)

Consider the following statement for a plan that has 1,000 or more participants:

On the Annual Funding Notice, the fair market value of assets as of the end of the plan year may include contributions receivable, as long as those contributions are made before the date the notice is timely furnished.

Question 14

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 15 (2 points)

A defined benefit plan was effective on 1/1/1990. The plan offers a lump sum option to terminated participants. The plan has never been amended to freeze benefit accruals.

Data concerning AFTAPs:

	<u>AFTAP</u>	<u>Date AFTAP certified</u>
2007 AFTAP	100%	2/1/2008
2008 AFTAP	95%	7/1/2008
2009 AFTAP	85%	7/1/2009
2010 AFTAP	77%	7/1/2010
2011 AFTAP	58%	7/1/2011

Participant Smith, who has always been an NHCE, is entitled to a lump sum distribution of his total accrued benefit in excess of \$100,000.

Consider the following statement:

The first date after 12/31/2007 on which participant Smith could not be paid a full lump sum is 7/1/2010.

Question 15

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 16 (1 point)

An employer adopts a money purchase plan with the following allocation formula: 5% of pay prior to age 64, 3% thereafter.

Consider the following statement:

This allocation formula does not meet the qualification requirements under the Internal Revenue Code.

Question 16

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 17 (1 point)

An employer who is a member of a controlled group maintains a plan with a 2010 FTAP less than 80%.

The aggregate ERISA section 4010 funding shortfall for plans in the controlled group is \$12 million.

All required contributions have been paid in a timely manner.

No member of the controlled group has ever applied for or received a funding waiver.

Consider the following statement:

ERISA section 4010 reporting is waived for members of the controlled group for the 2010 plan year.

Question 17

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 19 (1 point)

Selected plan data:

<u>Determination date</u>	<u>Number of active participants</u>
1/1/2009	1,000
1/1/2010	801
7/1/2010	720
12/31/2010	850

Assume no reporting waivers apply.

Consider the following statement:

A reportable event as defined in section 4043 of the PBGC regulations occurred during the 2010 event year.

Question 19

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 20 (1 point)

Company ABC maintains a defined benefit pension plan. Non-owner Smith's sole duties with regard to the pension plan are to gather service and compensation data for benefit calculation purposes, prepare communications to participants, and prepare the annual Form 5500 filing.

Consider the following statement:

Smith is a plan fiduciary.

Question 20

Is the above statement true or false?

- (A) True
- (B) False

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Data for Question 21 (2 points)

Employer X sponsors Plan A. Plan A met the requirements of IRC section 410(b) for the 2007 plan year.

Employer Y sponsors Plan B. Plan B met the requirements of IRC section 410(b) for the 2007 plan year.

Both employers properly relied upon the results of their respective 2007 nondiscrimination tests to substantiate compliance with nondiscrimination testing requirements for 2009.

Employer X acquired Employer Y in 2009.

No changes were made to the pension plans or to the employee population before or after the acquisition.

Consider the following statement:

Employer X must conduct a IRC section 410(b) coverage test for Plan B for the 2010 plan year.

Question 21

Is the above statement true or false?

(A) True

(B) False

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Data for Question 22 (3 points)

As of 12/31/2009:

Active vested participants	11
Active non-vested participants	13
Terminated vested participants	3
Retired participants	5

On 1/1/2010, the only employees of the company are the active vested and active non-vested participants in the plan.

Data as of 1/1/2010:

Market value of plan assets	\$1,200,000
Actuarial value of plan assets	1,320,000
Standard Premium Funding Target	1,830,000

The PBGC Flat-rate premium rate is \$35 per participant in 2010.

The plan administrator has not made an election to use the Alternative Premium Funding Target.

Question 22

In what range is the total PBGC premium for 2010?

- (A) Less than \$4,250
- (B) \$4,250 but less than \$5,000
- (C) \$5,000 but less than \$5,750
- (D) \$5,750 but less than \$6,500
- (E) \$6,500 or more

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Data for Question 23 (4 points)

Type of Plan: Multiemployer.

Employer A is a contributing employer to a multiemployer plan.

Method for calculating withdrawal liability: Presumptive with mandatory de minimis rule.

Employer A completely withdraws from the plan on 12/31/2010. No other employers have ever withdrawn from the plan.

Prior to 2003 there were no unfunded vested benefits.

<u>Year</u>	<u>Total contributions – all employers</u>	<u>Total contributions Employer A</u>	<u>Total 12/31 unfunded vested benefits (all employers)</u>
2003	\$10,800,000	\$850,000	\$0
2004	11,500,000	920,000	0
2005	13,600,000	760,000	0
2006	14,800,000	650,000	0
2007	12,700,000	870,000	0
2008	11,200,000	905,000	29,900,000
2009	14,000,000	805,000	35,900,000
2010	15,800,000	725,000	35,200,000

Question 23

In what range is the withdrawal liability for Employer A?

- (A) Less than \$1,950,000
- (B) \$1,950,000 but less than \$2,100,000
- (C) \$2,100,000 but less than \$2,250,000
- (D) \$2,250,000 but less than \$2,400,000
- (E) \$2,400,000 or more

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Data for Question 24 (4 points)

Plan effective date: 1/1/2009.

Benefit formula: \$500 per month per year of service. No prior service credit is granted.

Vesting: 100% with 5 years of service.

The plan offers an actuarially equivalent lump sum option using 417(e)(3) interest and mortality to participants who terminate employment.

2009 AFTAP: 100%

2010 AFTAP: 30%

2011 AFTAP: 50%

2012 AFTAP: 80%

2013 AFTAP: 55%

2014 AFTAP: 65%

In each year, the AFTAP was certified by March 31 of the applicable plan year.

Data for participant Smith:

Date of birth	11/1/1949
Date of hire	1/1/1997
Date of termination	12/31/2013
Date of retirement	11/1/2014

Commutation functions based on IRC section 417(e)(3) interest and mortality:

	<u>1<sup>st</sup> Segment</u>	<u>2<sup>nd</sup> Segment</u>	<u>3<sup>rd</sup> Segment</u>
$N^{(12)}_{65}$	9,746,716		
$N^{(12)}_{70}$	6,234,830	3,446,481	
$N^{(12)}_{85}$		418,611	209,070
$D_{65}$	810,248	504,417	315,423

Question 24

What is the maximum lump sum available for Smith at retirement?

- (A) Less than \$75,000
- (B) \$75,000 but less than \$150,000
- (C) \$150,000 but less than \$225,000
- (D) \$225,000 but less than \$300,000
- (E) \$300,000 or more

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Data for Question 25 (2 points)

Employees enter the plan on the 1/1 or 7/1 coincident with or next following completion of one year of service. Service for eligibility is based on elapsed time.

Participants accrue a benefit upon completion of 1,000 hours of service in any plan year.

The plan covers all employees, including collectively bargained employees.

Data for selected employees:

<u>Employee</u>	<u>Collectively bargained</u>	<u>Date of birth</u>	<u>Date of hire</u>	<u>Date of termination</u>	<u>2010 hours</u>
I	Yes	1/1/1960	8/1/1995		2,000
II	No	1/1/1960	8/1/2009		2,000
III	No	1/1/1960	8/1/1995	9/1/2010	700

Question 25

Which, if any, of the above employees are excludable employees in 2010 with respect to the non-collectively bargained portion of the plan in accordance with Regulation 1.410(b)?

- (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.

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Data for Question 26 (3 points)

The plan is not subject to IRC section 436 benefit restrictions.

Funding target / current liability:                   \$4,850,000  
Assets:   5,350,000

Consider the data for the four highest paid HCEs below:

	<u>Lump sum amount</u>	<u>Funding target/ current liability</u>
Smith	\$200,000	\$180,000
Jones	290,000	260,000
Brown	230,000	180,000
Green	250,000	200,000

Question 26

Which pair of participants could be permitted to receive their lump sum distributions regardless of who gets paid first?

- (A) Brown & Green
- (B) Brown & Jones
- (C) Smith & Jones
- (D) Smith & Green
- (E) The correct answer is not given by (A), (B), (C), or (D) above.

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Data for Question 27 (4 points)

A company sponsors two plans, a profit sharing plan with a 401(k) feature and a defined benefit plan, which are aggregated for testing purposes. The aggregated plan is not primarily defined benefit in nature and does not consist of broadly available separate plans.

Nondiscrimination testing methods and assumptions:

Standard interest rate	8.5%
Normal form of payment	Joint and 50% Survivor
Immediate annuity factor for normal form at age 65	9.77

Selected 2010 data for all NHCEs:

	<u>Age</u>	<u>Compensation</u>	<u>Increase in accrual DB accrued benefit during 2010</u>	<u>Profit sharing allocation</u>	<u>Catch up contribution</u>	<u>401(k) deferral</u>
NHCE1	50	\$50,000	\$1,000	\$1,000	\$1,000	\$1,000
NHCE2	35	50,000	2,000	500	0	0

The aggregated plans use the gateway test to determine whether testing can be performed on a benefits basis.

The equivalent defined benefit allocations are averaged.

Question 27

What is the equivalent allocation rate for NHCE1?

- (A) Less than 7%
- (B) 7% but less than 8%
- (C) 8% but less than 9%
- (D) 9% but less than 10%
- (E) 10% or more

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Data for Question 28 (2 points)

A plan allows voluntary employee contributions.

Data for participant Smith:

Date of birth	1/1/1946
Date of hire	1/1/2008
Date of termination	12/31/2010

Smith makes one voluntary employee contribution of \$1,000 on 12/31/2008 .

120% of federal mid-term rate for 2008:	4.31%
120% of federal mid-term rate for 2009:	2.48%
120% of federal mid-term rate for 2010:	2.47%

Trust earnings during 2008:	4.00%
Trust earnings during 2009:	4.00%
Trust earnings during 2010:	4.00%

Applicable 417(e) segment rates for 2010: {5%, 5.5%, 6%}

Question 28

In what range is the value of Smith's employee-paid benefit as of 12/31/2010?

- (A) Less than \$1,067
- (B) \$1,067 but less than \$1,084
- (C) \$1,084 but less than \$1,101
- (D) \$1,101 but less than \$1,118
- (E) \$1,118 or more

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Data for Question 29 (4 points)

Plan effective date: 9/1/2006.

Plan provisions:

Benefit formula

Division 1: 2.0% of average annual compensation times years of participation

Division 2: 0.5% of average annual compensation times years of participation

Vesting: 100% for all participants

Plan termination date: 12/31/2010.

The PBGC determines that the plan was terminated for a reasonable business purpose.

Data for Smith and Jones, neither of whom is a majority owner:

	<u>Smith</u>	<u>Jones</u>
Division	1	2
Date of hire	1/1/2007	1/1/2008
Date of participation	1/1/2007	1/1/2008
Average annual compensation	\$22,000	\$70,000

Question 29

In what range is the sum of the monthly benefits payable at normal retirement date that is guaranteed by the PBGC for Smith and Jones?

- (A) Less than \$181
- (B) \$181 but less than \$195
- (C) \$195 but less than \$209
- (D) \$209 but less than \$223
- (E) \$223 or more

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Data for Question 30 (3 points)

Benefit formula: 1.5% of final compensation per year of service.

Early retirement date: Age 60 with 10 years of service.

Early retirement formula:

Before 1/1/2007	Accrued benefit, unreduced
After plan amendment effective 1/1/2007	Accrued benefit reduced 4% for each year the benefit commences before normal retirement date

Data for participant Smith:

Date of birth	1/1/1949
Date of hire	1/1/1980
Date of retirement	1/1/2009
Monthly accrued benefit as of 12/31/2006	\$1,650
Annual compensation each year from 2007 to date of retirement	\$50,000

Question 30

In what range is the monthly benefit payable to Smith on his date of retirement?

- (A) Less than \$1,400
- (B) \$1,400 but less than \$1,550
- (C) \$1,550 but less than \$1,700
- (D) \$1,700 but less than \$1,850
- (E) \$1,850 or more

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Data for Question 31 (2 points)

Consider the following statements:

- I. In a standard termination, a plan amendment adopted after the plan's termination date that increases benefits is taken into account with respect to a participant's benefits.
- II. In a distress termination, beginning on the proposed termination date, the plan administrator must limit benefit payments in accordance with PBGC regulations.
- III. In a distress termination, beginning on the proposed termination date, the plan administrator must cease paying lump sums.

Question 31

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.

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Data for Question 32 (3 points)

A plan terminates with excess assets.

The plan will not be amended to increase benefits.

The company intends to establish a qualified replacement plan and transfer into this plan the minimum amount necessary to lower the excise tax to less than 50%.

The present value of benefits on a termination basis is \$750,000.

The excise tax paid by the company as a result of the reversion is \$46,000.

Question 32

In what range was the value of plan assets before the transfer to the qualified replacement plan?

- (A) Less than \$990,000
- (B) \$990,000 but less than \$1,020,000
- (C) \$1,020,000 but less than \$1,050,000
- (D) \$1,050,000 but less than \$1,080,000
- (E) \$1,080,000 or more

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Data for Question 34 (3 points)

Plan effective date: 1/1/1990.

The plan offers optional unlimited lump sums to terminated participants equal to the actuarial equivalent of the accrued benefit.

The plan has not purchased annuities in the past three years.

AFTAP as of 1/1/2009: 82%.

AFTAP as of 1/1/2010: 75%.

All AFTAPs are certified before April 1 of the applicable year.

Data for participant Smith:

Marital status	Single
Retirement date	7/1/2010
Retirement age	65
Monthly accrued benefit	\$7,500

The plan uses IRC section 417(e) assumptions for actuarial equivalence, for which  $\ddot{a}^{(12)}_{65} = 11.67$

Question 34

In what range is the amount of the unrestricted portion of Smith's lump sum payment in 2010?

- (A) \$0
- (B) \$1 but less than \$284,000
- (C) \$284,000 but less than \$568,000
- (D) \$568,000 but less than \$852,000
- (E) \$852,000 or more

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Data for Question 35 (4 points)

Data as of 1/1/2010:

Standard Premium Funding Target	\$79,000,000
Alternative Premium Funding Target	75,000,000
Market value of assets before reflecting contributions receivable	50,000,000
Funding standard carryover balance	2,000,000
Prefunding balance	500,000

Contributions paid during 2010:

<u>Date paid</u>	<u>Amount</u>	<u>For plan year</u>
1/15/2010	\$1,500,000	2009
4/15/2010	2,000,000	2010
7/15/2010	2,000,000	2010
9/15/2010	10,000,000	2009
10/15/2010	2,000,000	2010

Effective interest rates:

Plan year 2009	6.50%
Plan year 2010	5.50%

The plan administrator has not made an election to use the Alternative Premium Funding Target.

Question 35

In what range is the PBGC Variable-rate premium for 2010?

- (A) Less than \$131,000
- (B) \$131,000 but less than \$161,000
- (C) \$161,000 but less than \$191,000
- (D) \$191,000 but less than \$221,000
- (E) \$221,000 or more

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Data for Question 36 (5 points)

A company sponsors two qualified retirement plans.

Plan A	Defined benefit pension plan
Plan B	Profit sharing plan with 401(k) feature

The plans are aggregated for purposes of coverage and nondiscrimination testing.

Coverage and nondiscrimination testing methods and assumptions:

Testing method	Benefits basis
Measurement period	Current plan year
Testing age	65
Standard interest rate	8.5%

Annuity factor for testing at testing age: 9.00

Data for all non-excludable employees for 2009:

	<u>Current age</u>	<u>Testing compensation</u>	<u>401(k) deferral</u>	<u>Profit sharing contribution</u>	<u>Plan A annual accrual</u>
HCE1	60	\$245,000	\$16,500	\$32,500	\$20,000
HCE2	65	245,000	16,500	32,500	20,000
NHCE1	25	20,000	0	800	300
NHCE2	45	15,000	1,000	750	0
NHCE3	40	55,000	300	0	2,000

Question 36

In what range is the average benefits percentage test percentage?

- (A) Less than 70%
- (B) 70% but less than 80%
- (C) 80% but less than 90%
- (D) 90% but less than 100%
- (E) 100% or more

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Data for Question 37 (2 points)

The plan sponsor ceased operations at a facility resulting in the separation from employment of 3,000 participants.

Immediately preceding the cessation of operations the plan had 14,000 participants, 8,000 of whom were active.

On date of facility shutdown:

Liability on a PBGC termination basis	\$90,000,000
Assets	\$65,000,000

Question 37

In what range is the amount of employer liability under ERISA section 4062(e) for cessation of operations at a facility?

- (A) Less than \$7,000,000
- (B) \$7,000,000 but less than \$14,000,000
- (C) \$14,000,000 but less than \$21,000,000
- (D) \$21,000,000 but less than \$28,000,000
- (E) \$28,000,000 or more

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Data for Question 38 (3 points)

A plan is in at-risk status under IRC section 430(i).

The Plan has not purchased annuities in the past three years.

Segment rates for funding:

2009 plan year	{5.20%, 6.10%, 6.50%}
2010 plan year	{6.50%, 7.00%, 7.20%}

AFTAP as of 1/1/2009: 72%

As of 7/1/2010, the 2010 AFTAP has not been certified.

2009 effective interest rate: 5.50%

On 7/1/2010 the plan sponsor amends the plan to increase benefits. The present value as of 1/1/2010 of the increase in the funding target due to this amendment is \$1,100,000.

The at-risk present value of the increase in funding target due to this amendment as of 1/1/2010 is \$1,200,000.

Question 38

In what range is the IRC section 436 contribution that the plan sponsor must make on 7/1/2010 in order for the amendment to take effect?

- (A) Less than \$1,130,000
- (B) \$1,130,000 but less than \$1,240,000
- (C) \$1,240,000 but less than \$1,350,000
- (D) \$1,350,000 but less than \$1,460,000
- (E) \$1,460,000 or more

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Data for Question 39 (3 points)

Data as of 1/1/2010:

Standard Premium Funding Target	\$2,500,000
Alternative Premium Funding Target	2,690,000
Market value of assets	2,160,000
Actuarial value of assets	2,376,000

	First day of <u>plan year</u>
Prior to 8/1/2010:	January 1
After 7/31/2010:	August 1

An election was made to use the Alternative Premium Funding Target for premium purposes.

Question 39

In what range is the required PBGC Variable-rate Premium for the plan year that began January 1, 2010?

- (A) Less than \$1,700
- (B) \$1,700 but less than \$2,700
- (C) \$2,700 but less than \$3,700
- (D) \$3,700 but less than \$4,700
- (E) \$4,700 or more

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Data for Question 40 (3 points)

Type of plan: Multiemployer.

The plan is not in critical status.

<u>Year</u>	<u>Employer A contribution base units</u>
1996	1,300,000
1997	1,200,000
1998	1,250,000
1999	1,300,000
2000	1,400,000
2001	1,350,000
2002	1,000,000
2003	430,000
2004	350,000
2005	300,000
2006	300,000
2007	200,000
2008	250,000
2009	250,000

Question 40

In what range is the fraction that will be multiplied by A's total withdrawal liability to determine its initial partial withdrawal liability?

- (A) Less than 0.72
- (B) 0.72 but less than 0.76
- (C) 0.76 but less than 0.80
- (D) 0.80 but less than 0.84
- (E) 0.84 or more

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Data for Question 41 (2 points)

Consider the following plans:

- Plan X Provides an accrued benefit equal to 1.5% of final average compensation for the first 10 years of service, 1.75% of final average compensation for the next 10 years of service and 2.25% of final average compensation for the next 10 years of service. Service is limited to 30 years.
- Plan Y Provides an accrued benefit equal to 1.5% of final average compensation for the first 10 years of service and 2.0% of final average compensation for years of service in excess of 10. The Plan requires active participants to contribute 1.0% of pay.
- Plan Z Provides an accrued benefit equal to 1.25% of final average compensation for each year of service plus 0.65% of final average compensation in excess of covered compensation. Service is limited to 30 years.

Question 41

Based on the information provided, which of the above plans may satisfy the safe harbor benefit rules under IRC section 401(a)(4)?

- (A) None
- (B) Plan X only
- (C) Plan Y only
- (D) Plan Z only
- (E) The correct answer is not given by (A), (B), (C), or (D) above.

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Data for Question 42 (3 points)

Plan effective date:	1/1/1980.
Normal retirement benefit:	\$1,500 per year for each completed year of service.
Early retirement eligibility:	Age 60 with 5 years of service.
Early retirement reduction:	4% for each year before age 65.
Plan normal form of benefit payment:	Single life annuity.
Qualified joint and survivor annuity for married participants:	Joint and 50% survivor annuity.
Pre-retirement death benefit:	Minimum qualified pre-retirement spousal annuity under IRC section 417 beginning no earlier than the date required by law.

Factor to convert the normal form of benefit to a 50% joint & survivor annuity: 0.86.

Data for participant Smith:

Date of birth	1/1/1954
Date of hire	1/1/1992
Spouse date of birth	1/1/1957
Date of marriage	7/1/2000
Date of death	1/1/2010

Question 42

In what range is the annual benefit payable to Smith's spouse at the earliest commencement date allowed under the plan?

- (A) Less than \$8,000
- (B) \$8,000 but less than \$10,000
- (C) \$10,000 but less than \$12,000
- (D) \$12,000 but less than \$14,000
- (E) \$14,000 or more

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Data for Question 43 (2 points)

An NHCE participant timely receives an applicable ERISA section 203(a)(3)(B) notice related to the suspension of benefit payments. The participant continues working past normal retirement age.

Consider the following statements:

- I. The plan must begin payment of benefits to the participant, unless the participant otherwise elects, within 60 days after the close of the plan year in which the latest of the following occurs: (a) the earliest of the participant's attaining age 65 or the plan's normal retirement date, (b) the 10<sup>th</sup> anniversary of the participant's participation in the plan, or (c) the participant's termination of employment, but not later than the required beginning date under IRC section 401(a)(9).
- II. The plan must provide the participant with an actuarially-increased normal retirement benefit if the participant commences payment prior to age 70 1/2.
- III. The plan benefit formula must consider the participant's service and salary through the date of termination, if applicable.

Question 43

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

- (A) None
- (B) I only
- (C) II only
- (D) III only
- (E) The answer is not given by (A), (B), (C), or (D) above.

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Data for Question 44 (2 points)

Consider the following statements:

- I. A plan fiduciary can be held personally liable for a breach of fiduciary duty.
- II. If fiduciary Smith commits a breach of fiduciary duty and fiduciary Jones later learns of the breach but does nothing, only Smith has committed a breach of fiduciary duty.
- III. Fiduciary breaches do not apply in the case of a fully-insured plan.

Question 44

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

- (A) None
- (B) I and II only
- (C) I and III only
- (D) II and III only
- (E) The answer is not given by (A), (B), (C), or (D) above.

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Data for Question 46 (3 points)

Effective date of plan: 1/1/2000.

The plan pays automatic lump sums that are under \$5,000 and otherwise offers optional unlimited lump sum payments to terminated participants.

The 2010 AFTAP of 75% was certified on 4/1/2010.

In May of 2010 the following three participants terminate employment and request immediate lump sum distributions:

	Lump sum available before considering <u>restrictions</u>	Present value of maximum PBGC <u>guaranteed benefit</u>
NHCE1	\$4,957	\$100,000
NHCE2	549,620	220,000
NHCE3	650,602	640,000

Question 46

What is the total of the lump sums that may be paid to the terminated participants?

- (A) Less than \$469,000
- (B) \$469,000 but less than \$509,000
- (C) \$509,000 but less than \$549,000
- (D) \$549,000 but less than \$589,000
- (E) \$589,000 or more

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Data for Question 47 (2 points)

Information for NHCE participant Smith for 2010:

Normal accrual rate (“NAR”)	7.59%
Most valuable accrual rate (“MVAR”)	8.53%

Information for all rate groups for 2010:

	<u>NAR</u>	<u>MVAR</u>
Rate group 1	3.21%	5.39%
Rate group 2	4.56%	8.43%
Rate group 3	6.95%	9.23%
Rate group 4	7.00%	7.00%

Question 47

In how many rate groups is participant Smith?

- (A) 0
- (B) 1
- (C) 2
- (D) 3
- (E) 4

**\*\*END OF EXAMINATION\*\***



