SOCIETY OF ACTUARIES

AMERICAN SOCIETY OF PENSION ACTUARIES

JOINT BOARD FOR THE ENROLLMENT OF ACTUARIES

COURSE P-365U (EA2)

JOINT BOARD BASIC EXAMINATION

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1990

Data for Question 1

Plan effective date: 1/1/84.

Actuarial cost method: Frozen initial liability.

Assumed interest rate:

Before 1990: 7%.
After 1989: 8%.

Credit balance in funding standard account as of 12/31/89: $30,000.

Selected valuation results as of 1/1/90:

	7%	8%
Normal cost as of 1/1	$100,000	$ 90,000
Unfunded liability	300,000	200,000

Question 1

In what range is the minimum required contribution for 1990 payable 12/31/90?

(A) Less than $79,000

(B) $79,000 but less than $81,000

(C) $81,000 but less than $83,000

(D) $83,000 but less than $85,000

(E) $85,000 or more

1990

Data for Question 2

Plan effective date: 1/1/89.

Actuarial cost method: Attained age normal.

Assumed interest rate: 7%.

Initial accrued liability: $500,000.

Effective 1/1/90, the plan was amended, increasing the unfunded liability by 10%.

The contributions for 1989 and 1990 were paid on 12/31/89 and 12/31/90 in amounts equal to the deductible limits for 1989 and 1990.

Question 2

In what range is the credit balance in the funding standard account as of 12/31/90?

(A) Less than $64,000

(B) $64,000 but less than $65,000

(C) $65,000 but less than $66,000

(D) $66,000 but less than $67,000

(E) $67,000 or more

1990

Data for Question 3

Plan effective date: 1/1/85.

Normal retirement age: 55.

Normal retirement benefit: 6% of final 5-year average compensation for each year of service up to 10 years.

Preretirement death benefit: None.

Assumed interest rate: 7%.

Data for sole participant:

Date of birth	1/1/55
Date of hire	1/1/84

Annual compensation:

1986	\$50,000
1987	60,000
1988	70,000
1989	80,000
1990	90,000

Defined benefit dollar limitation under IRC section 415 for 1990: \$102,582.

Selected actuarial functions for purposes of IRC section 415:

Age x	$N_x^{(12)}$	$\ddot{a}_x^{(12)}$
55	8,000	11.33
62	4,400	9.94
65	3,300	9.24
66	3,000	9.00
67	2,700	8.75

Question 3

In what range is the annual accrued benefit as of 12/31/90?

(A) Less than \$22,000

(B) \$22,000 but less than \$24,000

(C) \$24,000 but less than \$26,000

(D) \$26,000 but less than \$28,000

(E) \$28,000 or more

1990

Data for Question 4

Plan effective date: 1/1/84.

Actuarial cost method: Frozen initial liability.

Assumed interest rate: 8%.

Credit balance in funding standard account as of 12/31/88: $10,000.

Amortization charge as of 1/1/89 in funding standard account for initial accrued liability: $11,000.

Selected valuation results as of 1/1/89:

Normal cost as of 1/1	$ 18,000
Actuarial (market) value of assets	100,000
Normal cost under entry age normal method as of 1/1	14,000
Accrued liability under entry age normal method	110,000
Current liability projected to 12/31	86,000
Actuarial (market) value of assets projected to 12/31	105,000

Contribution for 1988 plan year in excess of the deductible limit for 1988, carried over to 1989: $5,000.

The contribution for 1989 was paid on 12/31/89 in an amount equal to the excess of the deductible limit for 1989 over the contribution carryover from 1988.

Question 4

In what range is the credit balance in the funding standard account as of 12/31/89?

(A) Less than $3,000

(B) $3,000 but less than $5,000

(C) $5,000 but less than $7,000

(D) $7,000 but less than $9,000

(E) $9,000 or more

1990

Data for Question 5

Plan effective date: 1/1/84.

Actuarial cost method: Frozen initial liability.

Assumed interest rate:

Before 1990: 7%.
After 1989: 8%.

Initial accrued liability: $800,000.

Selected valuation results as of 1/1/90:

	7%	8%
Normal cost as of 1/1	$ 40,000	$ 33,000
Unfunded liability	467,000	410,000

Question 5

In what range is the difference in the deductible limits for 1990 determined under the traditional approach and the fresh-start alternative approach?

(A) Less than $40,000

(B) $40,000 but less than $42,500

(C) $42,500 but less than $45,000

(D) $45,000 but less than $47,500

(E) $47,500 or more

1990

Data for Question 6

Plan A effective date: 1/1/80.

As of 1/1/89, Plan B is merged into Plan A using the de minimis rule of IRS Regulation 1.414(l)-1; the net effect of the change in assets and liabilities due to the merger is treated as an experience gain or loss.

Actuarial cost method: Entry age normal.

Assumed interest rate: 8%.

Credit balance in funding standard account for Plan A as of 12/31/88: $50,000.

Credit balance in funding standard account for Plan B as of 12/31/88: $0.

Selected valuation results as of 1/1/89:

	Before Merger		After Merger
	Plan A	Plan B	Plan A
Normal cost as of 1/1	$ 97,000	$ 3,000	$ 100,000
Accrued liability	1,500,000	50,000	1,550,000
Present value of accrued benefits	1,000,000	20,000	1,020,000
Actuarial value of assets	1,200,000	30,000	1,230,000

There were no experience gains or losses before 1989.

Question 6

In what range is the minimum required contribution for Plan A for 1989 payable 12/31/89?

(A) Less than $88,500

(B) $88,500 but less than $90,500

(C) $90,500 but less than $92,500

(D) $92,500 but less than $94,500

(E) $94,500 or more

1990

Data for Question 7

Consider the following benefit formulas:

I. 1.00% of compensation for each of the first 10 years of service, plus
1.50% of compensation for each of the next 20 years of service.

II. 1.00% of compensation for each of the first 20 years of service, plus
1.50% of compensation for each of the next 10 years of service.

III. 1.00% of compensation for each of the first 10 years of service, plus
1.25% of compensation for each of the next 10 years of service, plus
1.50% of compensation for each of the next 10 years of service.

Question 7

Which, if any, of these benefit formulas comply with at least one of ERISA's accrued benefit rules?

(A) I only

(B) III only

(C) I and II only

(D) II and III only

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

1990

Data for Question 8

Plan effective date: 1/1/89.

Plan year: Calendar year.

Employer's taxable year: 4/1 - 3/31.

Actuarial cost method: Entry age normal.

Assumed interest rate: 8%.

Initial accrued liability: $600,000.

Experience loss in 1989: $100,000.

Credit balance in funding standard account as of 12/31/89: $20,000.

Normal cost for 1990 as of 1/1/90: $50,000.

The contribution for the 1990 plan year was paid on 7/1/90 in an amount equal to the deductible limit for the taxable year ending 3/31/90.

The deductible limit for any taxable year is based upon the valuation for the plan year beginning in that taxable year.

Question 8

In what range is the credit balance in the funding standard account as of 12/31/90?

(A) Less than $40,000

(B) $40,000 but less than $45,000

(C) $45,000 but less than $50,000

(D) $50,000 but less than $55,000

(E) $55,000 or more

1990

Data for Question 9

Plan effective date: 1/1/86.

Normal retirement benefit: 1.25% of highest 3-year average compensation for each year of service.

The plan has always been top-heavy and provides for the minimum required top-heavy benefit.

Data for non-key employee Smith:

Date of birth	1/1/30
Date of hire	1/1/85

Annual compensation:

1985	$18,000
1986	20,000
1987	23,000
1988	28,000
1989	30,000
1990	35,000

Question 9

In what range is the annual accrued benefit for Smith as of 12/31/90?

(A) Less than $2,200

(B) $2,200 but less than $2,500

(C) $2,500 but less than $2,800

(D) $2,800 but less than $3,100

(E) $3,100 or more

1990

Data for Question 10

Plan effective date: 1/1/83.

Actuarial cost method: Frozen initial liability.

Assumed interest rate: 7%.

Initial accrued liability: $350,000.

Credit balance in funding standard account as of 12/31/88: $0.

Credit balance in funding standard account as of 12/31/89: $1,934.

Selected valuation results as of 1/1/90:

Normal cost as of 1/1	$ 70,000
Unfunded liability	316,000

Minimum required contribution for 1989 payable 12/31/89: $114,133.

All contributions for 1989 were paid in 1989.

Question 10

In what range is the minimum required quarterly contribution for 1990 payable 4/15/90?

(A) Less than $5,400

(B) $5,400 but less than $7,150

(C) $7,150 but less than $8,900

(D) $8,900 but less than $10,650

(E) $10,650 or more

1990

Data for Question 11

Consider the following statements regarding reasonable funding methods:

I. Projection of increases in the dollar limitation under IRC section 415 beyond the end of the current plan year is prohibited.

II. In the first plan year for which an actuarial cost method is used under which plan assets are allocated to individual participants to determine a plan's normal cost, the assets must be allocated in proportion to related liabilities.

III. An actuarial valuation may include current employees who have not yet satisfied the participation eligibility requirements of the plan.

Question 11

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

(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.

1990

Data for Question 12

Plan effective date: 1/1/87.

Actuarial cost method: Frozen initial liability.

Assumed interest rate:

Before 1990: 8%.
After 1989: 7%.

The contribution for each year before 1990 was paid on 12/31 of that year in an amount equal to the deductible limit for that year.

Selected valuation results as of 1/1/90:

	8%	7%
Normal cost as of 1/1	$ 30,000	$ 35,000
Accrued liability under entry age normal method	300,000	350,000

If the assumed interest rate had not been changed, the deductible limit for 1990 would have been $65,000, and the full funding limitation for 1990 would not have applied.

Question 12

In what range is the deductible limit for 1990?

(A) Less than $70,200

(B) $70,200 but less than $72,200

(C) $72,200 but less than $74,200

(D) $74,200 but less than $76,200

(E) $76,200 or more

1990

Data for Question 13

Type of plan: Multiemployer.

History of contribution base units for Employer A:

1982	650,000
1983	600,000
1984	500,000
1985	450,000
1986	400,000
1987	350,000
1988	300,000
1989	250,000
1990	200,000
1991	150,000

Employer A partially withdrew from the plan as of 12/31/90. No other employers have withdrawn from the plan

If Employer A had completely withdrawn from the plan as of 12/31/88, its withdrawal liability would have been $280,000.

If Employer A had completely withdrawn from the plan as of 12/31/90, its withdrawal liability would have been $250,000.

The plan does not cover employees in the retail food industry.

Question 13

In what range is Employer A's partial withdrawal liability?

(A) Less than $130,000

(B) $130,000 but less than $150,000

(C) $150,000 but less than $170,000

(D) $170,000 but less than $190,000

(E) $190,000 or more

1990

Data for Question 14

Plan effective date: 1/1/79.

Actuarial cost method: Frozen initial liability.

Actuarial value of assets:

Before 1989: Average of market value and book value, but not less than 80% or more than 120% of market value.

After 1988: Market value.

Assumed interest rate: 7%.

Initial accrued liability: $500,000.

Credit balance in funding standard account as of 12/31/88: $30,000.

Selected valuation results as of 1/1/89:

Present value of future benefits	$2,000,000
Market value of assets	500,000
Book value of assets	750,000
Present value of future compensation	3,000,000
1989 compensation	300,000

Question 14

In what range is the minimum required contribution for 1989 payable 12/31/89?

(A) Less than $124,000

(B) $124,000 but less than $132,000

(C) $132,000 but less than $140,000

(D) $140,000 but less than $148,000

(E) $148,000 or more

Data for Question 15

Plan effective date: 1/1/84.

Actuarial cost method: Entry age normal.

Assumed interest rate: 7%.

Funding deficiency in regular funding standard account as of 12/31/89: $15,000.

Credit balance in alternative funding standard account as of 12/31/89: $0.

Selected valuation results as of 1/1/90:

Normal cost as of 1/1	$20,000
Accrued liability	90,000
Actuarial value of assets	60,000

There were no experience gains or losses before 1990.

The minimum required contribution for 1989 was determined under the alternative minimum funding standard.

Question 15

In what range is the deductible limit for 1990?

(A) Less than $23,000

(B) $23,000 but less than $24,000

(C) $24,000 but less than $25,000

(D) $25,000 but less than $26,000

(E) $26,000 or more

1990

Data for Question 16

Plan effective date: 1/1/83.

Actuarial cost method:

Before 1989: Entry age normal.
After 1988: Aggregate.

Assumed interest rate: 7%.

Initial accrued liability: $250,000.

Selected valuation results as of 1/1/89:

Present value of future benefits	$ 500,000
Actuarial (market) value of assets	70,000
Present value of future compensation	4,000,000
Annual compensation	500,000
Normal cost under entry age normal method as of 1/1	20,000
Accrued liability under entry age normal method	250,000

There were no experience gains or losses before 1989 other than an experience loss of $5,000 in 1987 that is being amortized over 15 years commencing on 1/1/88.

Question 16

In what range is the minimum required contribution for 1989 payable 12/31/89?

(A) Less than $1,800

(B) $1,800 but less than $4,900

(C) $4,900 but less than $8,000

(D) $8,000 but less than $11,100

(E) $11,100 or more

1990

An error was found in Question 17 and it was omitted from the scoring.

1990

Data for Question 18

Plan effective date: 1/1/89.

Actuarial cost method: Entry age normal.

Assumed interest rate: 7%.

Selected valuation results:

	1/1/89	1/1/90
Normal cost as of 1/1	$ 15,000	$ 14,000
Accrued liability	120,000	130,000

The minimum required contribution for 1989 was fully waived.

The contribution for 1990 was paid on 1/1/90 in an amount equal to the normal cost plus the limit adjustments for 1990 determined as of 1/1/90.

Question 18

In what range is the credit balance in the funding standard account as of 12/31/90?

(A) Less than $1,100

(B) $1,100 but less than $2,100

(C) $2,100 but less than $3,100

(D) $3,100 but less than $4,100

(E) $4,100 or more

1990

Data for Question 19

Plan effective date: 1/1/90.

Normal retirement benefit: 2% of final year's compensation for each year of service.

Actuarial cost method: Projected unit credit.

Actuarial assumptions:

Compensation increases:	None.
Retirement age:	65.

Data for participant Smith:

Date of birth	1/1/50
Date of hire	1/1/85
1990 compensation	$200,000

Defined benefit dollar limitation under IRC section 415 for 1990: $102,582.

Question 19

In what range is Smith's annual benefit accrual used in determining the normal cost for 1990 as of 1/1/90?

(A) Less than $1,000

(B) $1,000 but less than $4,000

(C) $4,000 but less than $7,000

(D) $7,000 but less than $10,000

(E) $10,000 or more

1990

Data for Question 20

Plan effective date: 1/1/84.

Plan year: Calendar year.

Employer's taxable year: 4/1 - 3/31.

Actuarial cost method: Aggregate.

Assumed interest rate: 7%.

Contribution for 1988 plan year: $100,000 paid on 4/15/89.

Credit balance in funding standard account as of 12/31/88: $10,000.

Selected valuation results as of 1/1/89:

Present value of future benefits	$ 1,800,000
Actuarial (market) value of assets	500,000
Present value of future compensation	12,000,000
Annual compensation	900,000

The deductible limit for any taxable year is based upon the valuation for the plan year ending in that taxable year.

$40,000 was deducted for the taxable year ending 3/31/89.

Question 20

In what range is the deductible limit for the taxable year ending 3/31/90?

(A) Less than $102,000

(B) $102,000 but less than $105,000

(C) $105,000 but less than $108,000

(D) $108,000 but less than $111,000

(E) $111,000 or more

1990

Data for Question 21

Consider the following statements:

I. If an enrolled actuary is aware of any conflict of interest which he/she may have with respect to the performance of actuarial services, he/she shall not perform such services under any circumstances.

II. An enrolled actuary shall provide written notification to the Internal Revenue Service, the Department of Labor, or the Pension Benefit Guaranty Corporation of the nonfiling of any actuarial document he/she signed upon discovery of the nonfiling.

III. An actuary's enrolled status may be suspended or terminated if it is found that the actuary has, at any time after he/she applied for enrollment, knowingly filed false or altered documents relating to actuarial services.

Question 21

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

(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.

1990

Data for Question 22

Defined benefit plan provisions:

Effective date: 1/1/85.
Normal retirement benefit: 50% of highest 3-year average compensation.

Defined contribution plan provisions:

Effective date: 1/1/85.
Employer contributions: 7.5% of compensation.

Data for participant Smith:

Date of birth	1/1/26
Date of hire	1/1/82
Date of retirement	1/1/91

Annual compensation:

1988	$200,000
1989	200,000
1990	200,000

Smith's defined contribution fraction is 0.38.

Defined benefit dollar limitation under IRC section 415 for 1990 and 1991: $102,582.

Benefits from the defined benefit plan will be reduced first if benefits and contributions would otherwise be more than permitted by IRC section 415.

Question 22

In what range is the maximum annual benefit payable to Smith from the defined benefit plan in 1991?

(A) Less than $45,000

(B) $45,000 but less than $57,500

(C) $57,500 but less than $70,000

(D) $70,000 but less than $82,500

(E) $82,500 or more

1990

Data for Question 23

Plan effective date: 1/1/89.

Actuarial cost method: Frozen initial liability.

Assumed interest rate: 7%.

Selected funding standard account items for 1989:

Normal cost as of 1/1	$ 45,000
Net amortization charges as of 1/1	40,000
Contribution for 1989 (paid on 12/31)	105,000

Normal cost for 1990 as of 1/1/90: $60,000.

A contribution for 1990 of $7,500 was paid on 4/15/90.

Question 23

In what range is the minimum required quarterly contribution for 1990 payable 7/15/90?

(A) Less than $500

(B) $500 but less than $1,000

(C) $1,000 but less than $1,500

(D) $1,500 but less than $2,000

(E) $2,000 or more

1990

Data for Question 24

Valuation date: 12/31.

Actuarial cost method: Aggregate.

Assumed interest rate: 7%.

Selected valuation results as of 12/31/89:

Normal cost for purposes of IRC section 404 as of 12/31	$250,000
Actuarial value of assets	575,000
Market value of assets	525,000
Current liability	800,000
Accrued liability under entry age normal method (includes normal cost)	900,000

Contribution carryover for purposes of IRC section 404 as of 12/31/88: $100,000.

There were more than 100 participants at all times during 1989.

Question 24

In what range is the deductible limit for 1989?

(A) Less than $250,000

(B) $250,000 but less than $300,000

(C) $300,000 but less than $350,000

(D) $350,000 but less than $400,000

(E) $400,000 or more

1990

Data for Question 25

Plan effective date: 1/1/76.

Plan termination date: 12/31/90.

Normal retirement eligibility:

Effective 1/1/76: Later of age 65 or 10 years of participation.
Effective 1/1/89: Earlier of age 65 or 20 years of service.

Normal retirement benefit:

Effective 1/1/76: $20 per month for each year of service.
Effective 7/1/87: $30 per month for each year of service.

Early retirement benefit: None.

Participant data as of 12/31/90:

	Smith	Brown
Age	70	66
Years of service	10	30
Ownership	5%	95%
Status	Retired 1/1/89	Active

Question 25

In what range is the sum of the monthly benefits guaranteed by the PBGC in priority category 4 of ERISA Section 4044?

(A) Less than $500

(B) $500 but less than $550

(C) $550 but less than $600

(D) $600 but less than $650

(E) $650 or more

1990

Data for Question 26

An employer sponsors a defined benefit (DB) plan and 401(k) plan, both of which benefit all employees.

Actuarial cost method for DB plan: Aggregate.

Credit balance in funding standard account of DB plan as of 12/31/88: $0.

Total compensation paid to all employees for 1989: $1,000,000.

Normal cost for DB plan for 1989 as of 12/31/89: $275,000.

Contribution to DB plan for 1989: $300,000 paid in 1989.

Contributions to 401(k) plan for 1989:

Employee pre-tax elective contributions	$25,000
Employer matching contributions	25,000
Employer discretionary contributions	50,000

The 401(k) plan passes the IRC sections 401(k) and 401(m) tests for 1989 without requiring a return or recharacterization of any contributions.

Question 26

In what range is the contribution subject to excise tax for 1989?

(A) Less than $50,000

(B) $50,000 but less than $80,000

(C) $80,000 but less than $110,000

(D) $110,000 but less than $140,000

(E) $140,000 or more

1990

Data for Question 27

Plan effective date: 1/1/75.

Plan termination date: 1/1/90.

Summary of plan provisions:

Normal retirement benefit: 50% of average annual compensation.
Accrued benefit: Fractional rule based on service.
Early retirement benefit: Accrued benefit reduced by 6% for each year by which benefits commence prior to normal retirement date.
Normal form of payment: Unreduced qualified 50% joint and survivor annuity.

Data for participant Smith:

Date of birth	1/1/32
Date of hire	1/1/75
Date of retirement	1/1/87
Date of death	12/31/89
Spouse's date of birth	1/1/30
Average annual compensation	$30,000
Form of payment	Normal form

Effective 7/1/89, benefits to all retirees were increased by 15%.

Question 27

In what range is the monthly benefit for Smith allocated to priority category 3 of ERISA Section 4044?

(A) Less than $90

(B) $90 but less than $140

(C) $140 but less than $190

(D) $190 but less than $240

(E) $240 or more

1990

Data for Question 28

Data for all participants ever covered under the employer's defined benefit plan and profit-sharing plan, both of which became effective on 1/1/84.

Valuation date for both plans: 12/31.

			Defined Benefit Plan		Profit Sharing Plan	
Name	Status	1990 Compensation	Present Value of Accrued Benefits as of 12/31/90	Distributions	Account Balance 12/31/90	Distributions
Gray	Active 75% Owner	$200,000	$150,000	$ 0	$60,000	$ 0
Brown	Active 2% Owner	165,000	40,000	0	30,000	0
Green	Active Non-key Employee	155,000	60,000	0	25,000	0
White	Active Non-key Employee	40,000	45,000	0	15,000	0
Black	Retired 12/31/86 Non-key Employee	0	0	85,000 12/31/86	0	$45,000 12/31/86
Blue	Terminated 9/30/84 Key Employee	0	50,000	0	15,000	0

Question 28

In what range is the top-heavy ratio for 1991?

(A) Less than 55%

(B) 55% but less than 60%

(C) 60% but less than 65%

(D) 65% but less than 70%

(E) 70% or more

1990

Data for Question 29

Plan effective date: 1/1/84.

Actuarial cost method: Frozen initial liability.

Assumed interest rate: 8%.

Funding standard account items for 1988:

Charges

Funding deficiency	$ 0
Normal cost as of 1/1	50,000
Amortization payments	
-- Waivers	3,000
-- Other sources	20,000
Interest	5,840
Total	78,840

Credits

Credit balance	$ 0
Employer contributions	40,000
Amortization payments	5,000
Interest	400
Full funding credit:	
-- Without regard to 150% current liability limit	0
-- With regard to 150% current liability limit	33,440
Total	78,840

Selected valuation results as of 1/1/89:

Normal cost as of 1/1	$ 55,000
Actuarial (market value) of assets	700,000
Current liability projected to 12/31	540,000
Expected benefit payments	0
Normal cost under entry age normal method as of 1/1	45,000
Accrued liability under entry age normal method	680,000

The full funding credit due to the 150% current liability limit is to be amortized over 10 years.

Question 29

In what range is the full funding credit for 1989?

(A) Less than $28,000

(B) $28,000 but less than $37,000

(C) $37,000 but less than $46,000

(D) $46,000 but less than $55,000

(E) $55,000 or more

Data for Question 30

Plan effective date: 1/1/80.

Actuarial cost method: Projected unit credit.

Valuation interest rate: 7%.

Current liability interest rate: 9%.

Credit balance in funding standard account as of 12/31/88: $0.

Selected valuation results as of 1/1/89:

Unfunded accrued liability	$274,615
Unfunded old liability	110,000
Unfunded current liability	170,000
Actuarial value of assets	510,000
Number of active participants	500

Partial table of applicable percentages for unfunded new liability amount:

Funded Current Liability Percentage	Applicable Percentage
35%	30.00%
65	22.50
75	20.00
100	13.75

Unpredictable contingent event amount for 1989: $0.

Question 30

In what range is the deficit reduction contribution for 1989 as of 1/1/89?

(A) Less than $23,000

(B) $23,000 but less than $24,000

(C) $24,000 but less than $25,000

(D) $25,000 but less than $26,000

(E) $26,000 or more

1990

Data for Question 31

Plan effective date: 1/1/85.

Actuarial cost method: Entry age normal.

Assumed interest rate: 7%.

Initial accrued liability: $50,000.

Selected valuation results:

	1/1/89	1/1/90
Normal cost as of 1/1	$ 15,000	$ 15,000
Accrued liability	100,000	123,050
Actuarial value of assets	90,000	126,300
Market value of assets	85,000	125,000

There were no experience gains or losses before 1989.

Contribution for 1989: $30,000 paid on 12/31/89.

Question 31

In what range is the deductible limit for 1990?

(A) Less than $15,000

(B) $15,000 but less than $17,000

(C) $17,000 but less than $19,000

(D) $19,000 but less than $21,000

(E) $21,000 or more

1990

Data for Question 32

Type of plan: Multiemployer.

Plan effective date: 1/1/75.

Normal retirement benefit:

Effective 1/1/75: \$15 per month for each year of service.
Effective 1/1/87: \$20 per month for each year of service.

Data for all participants as of 1/1/90:

Number of Participants	Age	Years of Service	Present Value of \$1 per Month Commencing at Age 65
5	50	30	\$50
15	40	20	35

The plan has always paid at least normal cost plus interest on the unfunded liability.

Question 32

In what range is the present value of benefits guaranteed by the PBGC as of 1/1/90?

(A) Less than \$220,000

(B) \$220,000 but less than \$240,000

(C) \$240,000 but less than \$260,000

(D) \$260,000 but less than \$280,000

(E) \$280,000 or more

ANSWER KEY

NOVEMBER 1990 COURSE P-365U (EA2)

1. C
2. D
3. B
4. B
5. D
6. D
7. E
8. B
9. C
10. C
11. D
12. D
13. B
14. B
15. E
16. C
17. n/a
18. C
19. A
20. D
21. C
22. C
23. A
24. C
25. C
26. D
27. B
28. A
29. E
30. B
31. D
32. B