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AMERICAN SOCIETY OF PENSION ACTUARIES

JOINT BOARD FOR THE ENROLLMENT OF ACTUARIES

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JOINT BOARD BASIC EXAMINATION

This is the November 1994 examination which has been released to the public by the administering organizations.

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1994

Data for Question 1

Plan effective date: 1/1/80.

Actuarial cost method: Entry age normal.

Valuation interest rate: 7% per year.

Selected valuation results as of 1/1/94:

Normal cost as of 1/1	$ 45,000
Unfunded accrued liability	400,000

Amortization charges in the funding standard account as of 1/1/94 due to:

Initial accrued liability	$20,000
Increase in accrued liability due to change in method on 1/1/85	8,500
Increase in accrued liability due to plan amendment on 1/1/89	7,000
Waiver of 1990 funding deficiency	10,000

Required interest rate for amortizing waived funding deficiencies: 7% per year.

There have been no experience gains or losses.

Question 1

In what range is the minimum required contribution for 1994 payable 12/31/94?

(A) Less than $90,000

(B) $90,000 but less than $95,000

(C) $95,000 but less than $100,000

(D) $100,000 but less than $105,000

(E) $105,000 or more

1994

Data for Question 2

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

Minimum required contribution for DB plan for 1994 as of 12/31/94: $400,000.

Deductible limit for DB plan alone for 1994: $525,000.

Contribution to DB plan for 1994: $525,000 paid on 12/31/94.

Contributions to 401(k) plan for 1994 (paid in 1994):

Employee pre-tax elective deferrals	$80,000
Employee post-tax voluntary contributions	20,000
Employer matching contributions	40,000
Employer discretionary contributions	60,000

Total taxable compensation paid to all employees for 1994: $800,000.

The 401(k) plan passes the IRC sections 401(k) and 401(m) tests for 1994 without requiring a return or recharacterization of any contributions.

No contributions are returned to the employer.

Question 2

In what range are the employer's total nondeductible contributions for 1994?

(A) Less than $225,000

(B) $225,000 but less than $275,000

(C) $275,000 but less than $325,000

(D) $325,000 but less than $375,000

(E) $375,000 or more

1994

Data for Question 3

Actuarial cost method: Aggregate.

Valuation interest rate: 7% per year.

Current liability interest rate: 8% per year.

Credit balance in funding standard account as of 12/31/92 and 12/31/93: $0.

Selected valuation results:

	1/1/93	1/1/94
Normal cost as of 1/1	$ 200,000	$ 210,000
Actuarial (market) value of assets	1,100,000	1,200,000
Normal cost under entry age normal method as of 1/1	160,000	170,000
Accrued liability under entry age normal method	1,000,000	1,300,000
Current liability projected to 12/31	800,000	1,100,000
Expected benefit payments for year beginning on valuation date	0	0

Question 3

In what range is the minimum required contribution for 1994 payable 12/31/94?

(A) Less than $220,000

(B) $220,000 but less than $230,000

(C) $230,000 but less than $240,000

(D) $240,000 but less than $250,000

(E) $250,000 or more

1994

Data for Question 4

Plan effective date: 1/1/86.

Plan termination date: 12/31/94.

Valuation date: 12/31.

Actuarial cost method: Individual aggregate.

Valuation interest rate: 7% per year.

Credit balance in funding standard account as of 12/31/93: $0.

Selected valuation results as of 12/31/94:

Normal cost	$ 50,000
Actuarial (market) value of assets, excluding contributions for 1994	300,000
Present value of PBGC guaranteed benefits on a termination basis	400,000
Present value of accrued benefits on a termination basis	500,000
Normal cost under entry age normal method	40,000
Accrued liability under entry age normal method, excluding normal cost for 1994	560,000
Current liability, including current liability accrual for 1994	450,000

Highest number of participants during 1994: 50.

Question 4

In what range is the deductible limit for 1994?

(A) Less than $50,000

(B) $50,000 but less than $100,000

(C) $100,000 but less than $150,000

(D) $150,000 but less than $200,000

(E) $200,000 or more

Data for Question 5

Plan effective date: 1/1/88.

Actuarial cost method: Frozen initial liability.

Valuation interest rate: 7% per year.

Credit balance in the funding standard account as of 12/31/93: $50,000.

Selected valuation results as of 1/1/94:

Normal cost as of 1/1	$ 25,000
Actuarial (market) value of assets	250,000
Unfunded liability	150,000
Normal cost under entry age normal method as of 1/1	20,000
Accrued liability under entry age normal method	260,000

The contribution for 1994 was paid on 12/31/94 in an amount equal to the deductible limit for 1994.

Question 5

In what range is the credit balance in the funding standard account as of 12/31/94?

(A) Less than $38,000

(B) $38,000 but less than $42,000

(C) $42,000 but less than $46,000

(D) $46,000 but less than $50,000

(E) $50,000 or more

1994

Data for Question 6

Defined benefit plan provisions:

Effective date: 1/1/94.
Normal retirement benefit: 100% of final 4-year average compensation.

Assumed retirement age: 65.

Data for participant Smith:

Date of birth	1/1/38
Date of hire	1/1/93

Projected annual compensation for Smith:

1999	$120,000
2000	130,000
2001	140,000
2002	150,000

Projected defined contribution fraction for Smith as of 12/31/2002: 0.37.

Defined benefit dollar limitation under IRC section 415 for 1994: $118,800.

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

Question 6

In what range is Smith's projected maximum annual benefit payable from the defined benefit plan in 2003 for purposes of determining funding requirements?

(A) Less than $80,000

(B) $80,000 but less than $85,000

(C) $85,000 but less than $90,000

(D) $90,000 but less than $95,000

(E) $95,000 or more

1994

Data for Question 7

Type of plan: Multiemployer.

Normal retirement benefit:

Effective 1/1/75: $15 per month for each year of service.
Effective 1/1/85: $25 per month for each year of service.
Effective 1/1/90: $30 per month for each year of service.

Data for all participants as of 1/1/94:

Number of Participants	Age	Years of Service
10	50	20
20	30	10

The plan became insolvent on 1/1/94. The plan has always paid at least the normal cost plus interest on the unfunded liability.

Question 7

In what range is the total amount of monthly benefits guaranteed by the PBGC as of 1/1/94?

(A) Less than $5,000

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

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

(D) $9,000 but less than $11,000

(E) $11,000 or more

1994

Data for Question 8

Plan effective date: 1/1/93.

Actuarial cost method: Entry age normal.

Valuation interest rate:

Before 1994: 8% per year.
After 1993: 7% per year.

Selected valuation results:

	1/1/93 (8%)	1/1/94 (8%)	1/1/94 (7%)
Normal cost as of 1/1	$20,000	$ 40,000	$ 50,000
Accrued liability	80,000	180,000	210,000

Contribution for 1993: $28,000 paid on 12/31/93.

Question 8

In what range is the deductible limit for 1994?

(A) Less than $80,000

(B) $80,000 but less than $81,000

(C) $81,000 but less than $82,000

(D) $82,000 but less than $83,000

(E) $83,000 or more

1994

Data for Question 9

Effective date of Plans A, B, and C: 1/1/94.

Number of employees as of 1/1/94:

	Plan A	Plan B	Plan C	Total
Highly compensated employees	10	15	0	25
Nonhighly compensated employees	75	25	10	110
Total employees	85	40	10	135

The employer does not maintain any separate lines of business and does not aggregate plans to satisfy IRC sections 401(a)(4) or 410(b).

Consider the following statements regarding minimum coverage and participation requirements.

I. Plan A's ratio percentage under the minimum coverage requirements of IRC section 410(b) is 68.18%.

II. Neither Plan B nor Plan C meets the minimum participation requirements of IRC section 401(a)(26).

III. The plans may be permissibly aggregated in order for each plan to meet the minimum participation requirements of IRC section 401(a)(26).

Question 9

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

(A) I only

(B) II only

(C) III only

(D) I, II, and III

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

1994

Data for Question 10

Plan effective date: 1/1/93.

Actuarial cost method: Aggregate.

Valuation interest rate: 7% per year.

Normal cost for 1993 as of 1/1/93: $100,000.

Normal cost for 1994 as of 1/1/94: $130,000.

175% of applicable mid-term federal rate for January, 1994: 9.40% per year.

The minimum required contribution for 1993 was paid on 12/31/93.

The first and second minimum required quarterly contributions for 1994 were paid on 4/15/94 and 7/15/94, respectively. The balance of the contribution required to meet the minimum funding standards for 1994 was paid on 3/15/95.

Question 10

In what range is the additional interest charge for 1994 due to the late payment of the third and fourth minimum required quarterly contributions for 1994?

(A) Less than $1,000

(B) $1,000 but less than $1,100

(C) $1,100 but less than $1,200

(D) $1,200 but less than $1,300

(E) $1,300 or more

1994

Data for Question 11

Plan effective date: 7/1/85.

Plan termination date: 12/31/93.

Normal retirement benefit:

Effective 7/1/85: $20 per month for each year of service.
Effective 1/1/90: $25 per month for each year of service.

Vesting eligibility: 100% after 3 years of service.

Participant data as of 12/31/93:

	Smith	Brown	Green
Date of birth	1/1/34	5/1/40	2/1/60
Date of hire	1/1/60	1/1/70	1/1/92
Ownership	95%	5%	0%
Status	Active	Active	Active

Question 11

In what range is the sum of the monthly normal retirement benefits guaranteed by the PBGC for Smith, Brown, and Green?

(A) Less than $770

(B) $770 but less than $790

(C) $790 but less than $810

(D) $810 but less than $830

(E) $830 or more

1994

Data for Question 12

Valuation date: 12/31.

Actuarial cost method: Aggregate.

Valuation interest rate: 7% per year.

Funding deficiency in funding standard account as of 12/31/93: $21,500.

Selected valuation results as of 12/31/94:

Present value of future benefits	$ 2,250,000
Actuarial (market) value of assets	890,000
Present value of future compensation	21,300,000
Annual compensation	1,775,000
Normal cost under entry age normal method	93,000
Accrued liability under entry age normal method, excluding normal cost for 1994	965,000
Current liability, including current liability accrual for 1994	680,000

Question 12

In what range is the deductible limit for 1994?

(A) Less than $102,000

(B) $102,000 but less than $112,000

(C) $112,000 but less than $122,000

(D) $122,000 but less than $132,000

(E) $132,000 or more

Data for Question 13

Consider the following statements regarding the determination of PBGC premiums:

I. In determining a plan's variable rate premium under the alternative calculation method, no adjustment is necessary for a significant event if the plan covers less than 500 participants.

II. A plan is exempt from the variable rate premium if the plan sponsor contributed an amount at least equal to the full funding limitation for the previous plan year.

III. In determining a plan's variable rate premium, the discounted value of all contributions made through the date the premium is due (or the date the premium payment form is filed, if earlier) is included in plan assets.

Question 13

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.

1994

Data for Question 14

As of 12/31/94, Plan A is split into Plan B and Plan C. The plan sponsor continues to maintain both Plans B and C.

Selected valuation results as of 12/31/94:

	Plan A	Plan B	Plan C
Present value of accrued benefits on a termination basis	$120,000	$80,000	$40,000
Current liability	108,000	72,000	36,000
Accrued liability	140,000	90,000	50,000
Market value of assets	150,000		

Question 14

What is the market value of assets allocated to Plan C as of 12/31/94?

(A) $40,000

(B) $45,000

(C) $50,000

(D) $55,000

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

1994

Data for Question 15

Plan effective date: 1/1/75.

Plan termination date: 12/31/94.

Normal form of payment: Unreduced qualified 50% joint and survivor annuity.

Automatic postretirement benefit increases: 3% per year, compounded annually, effective each 7/1 beginning the 7/1 after retirement.

Data for participant Smith as of 12/31/94:

Date of birth	1/1/30
Date of retirement	1/1/90
Monthly benefit at date of retirement	$2,800
Form of payment	Normal form
Ownership	0%
Status	Married

Maximum monthly benefit guaranteed by PBGC for 1994 (payable at age 65 as a life annuity): $2,556.82.

PBGC actuarial equivalence factor for converting a life annuity into the normal form of payment at age 65 for Smith: 88.2%.

Question 15

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

(A) Less than $300

(B) $300 but less than $500

(C) $500 but less than $700

(D) $700 but less than $900

(E) $900 or more

1994

Data for Question 16

Plan effective date: 1/1/75.

Normal retirement age: 55.

Preretirement death benefit: None.

Data for participant Smith:

Date of birth	1/1/39
Date of hire	1/1/86
Date of retirement	1/1/94
3-year average annual compensation as of 12/31/93	$200,000
Annual accrued benefit under plan formula as of 12/31/93	60,000
Form of payment elected	Life annuity

Defined benefit dollar limitation under IRC section 415 for 1994: $118,800.

Selected commutation functions for purposes of IRC section 415:

$N_{55}^{(12)} = 2{,}000 \quad N_{62}^{(12)} = 1{,}100 \quad N_{65}^{(12)} = 880$

Question 16

In what range is the maximum annual benefit payable to Smith in 1994?

(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

1994

Data for Question 17

Valuation interest rate: 7.0% per year.

Current liability interest rate: 7.5% per year.

Credit balance in funding standard account as of 12/31/93: $15,000.

Selected valuation results and funding standard account items as of 1/1/94:

Normal cost as of 1/1	$ 30,000
Actuarial value of assets	250,000
Amortization charges as of 1/1	
Due to initial accrued liability	20,000
Due to experience gains and losses	10,000
Current liability as of 1/1	500,000
Unfunded old liability as of 1/1 (13 years remaining)	200,000
Unpredictable contingent event benefits	0

The plan has always had 140 participants.

Question 17

In what range is the additional funding charge for 1994 as of 12/31/94?

(A) Less than $13,500

(B) $13,500 but less than $15,500

(C) $15,500 but less than $17,500

(D) $17,500 but less than $19,500

(E) $19,500 or more

1994

Data for Question 18

Plan effective date: 1/1/93.

Valuation interest rate: 7% per year.

Minimum required contribution for 1993 payable 12/31/93: $300,000.

Contribution for 1993: $400,000 paid on 3/15/94.

Minimum required contribution for 1994 payable 12/31/94: $225,000.

The first two contributions for 1994 were paid on 4/15/94 and 7/15/94 in the smallest amounts required to avoid an additional interest charge with respect to such contributions.

Question 18

In what range is the contribution paid on 7/15/94?

(A) Less than $38,000

(B) $38,000 but less than $39,000

(C) $39,000 but less than $40,000

(D) $40,000 but less than $41,000

(E) $41,000 or more

1994

Data for Question 19

Plan effective date: 1/1/82.

Actuarial cost method: Frozen initial liability.

Valuation interest rate: 6% per year.

Current liability interest rate: 8% per year.

Credit balance in funding standard account as of 12/31/93: $100,000.

Selected valuation results and funding standard account items as of 1/1/94:

Normal cost as of 1/1	$ 150,000
Actuarial value of assets	1,600,000
Current liability as of 1/1	2,000,000
Amortization charge for initial unfunded liability as of 1/1	25,000
Unfunded old liability	0
Number of participants	120

No unpredictable contingent events have occurred.

The employer sponsors another pension plan covering 200 employees.

The number of participants in each plan has remained constant during 1993 and 1994.

Question 19

In what range is the additional funding charge for 1994 as of 12/31/94?

(A) Less than $40,000

(B) $40,000 but less than $60,000

(C) $60,000 but less than $80,000

(D) $80,000 but less than $100,000

(E) $100,000 or more

1994

Data for Question 20

Data for sponsor of one qualified plan:

	Highly Compensated Employees	Nonhighly Compensated Employees
Total employees	738	2,157
Excludable employees	164	127
Employees benefiting under plan	574	1,381
Total of annual benefit accrual rates	1,196%	3,045%

Consider the following statements regarding the minimum coverage requirements of IRC section 410(b):

I. The ratio percentage is less than 70%.

II. The average benefit percentage test result is greater than 70%.

III. The nonhighly compensated employee concentration percentage is greater than 75%.

Question 20

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.

1994

Data for Question 21

Type of plan: Multiemployer.

Method for determining withdrawal liability: Rolling-five (second alternative) method with mandatory de minimis rule.

Employer A completely withdrew from the plan on 6/30/92. The withdrawal liability of Employer A is not collectible by the plan.

Employer B completely withdrew from the plan on 8/31/94.

There have been no other withdrawals.

Historical data:

Year	Total Contributions	Contributions By Employer A	Contributions By Employer B	Unfunded Vested Benefit Liability as of 12/31
1988	$ 950,000	$55,000	$38,000	
1989	1,000,000	40,000	35,000	
1990	1,010,000	25,000	32,000	
1991	1,200,000	10,000	21,000	$9,000,000
1992	1,100,000	5,000	19,000	7,500,000
1993	900,000	0	7,500	6,000,000
1994	800,000	0	3,000	5,500,000

Question 21

In what range is the withdrawal liability of Employer B?

(A) Less than $90,000

(B) $90,000 but less than $100,000

(C) $100,000 but less than $110,000

(D) $110,000 but less than $120,000

(E) $120,000 or more

1994

Data for Question 22

Plan termination date: 10/31/94.

Normal retirement benefit:

Effective 1/1/80:	\$100 per month for each year of service, payable as a life annuity.
Effective 1/1/90:	\$125 per month for each year of service, payable as a life annuity.
Effective 1/1/93:	\$135 per month for each year of service, payable as a life annuity with 10 years certain.

Data for active participant Smith (nonsubstantial owner):

Date of birth	1/1/40
Date of hire	11/1/74

Maximum monthly benefit guaranteed by PBGC for 1994 (payable at age 65 as a life annuity): \$2,556.82.

PBGC actuarial equivalence factor for converting a life annuity into a life annuity with 10 years certain at age 65: 92.5%.

Question 22

In what range is Smith's monthly normal retirement benefit (payable as a life annuity with 10 years certain) guaranteed by the PBGC?

(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

1994

Data for Question 23

Plan effective date: 1/1/94.

Type of plan: Defined benefit (Keogh) plan.

Normal retirement benefit: 100% of highest 3-year average compensation.

Actuarial cost method: Individual aggregate.

Actuarial assumptions:

Valuation interest rate: 7% per year.
Compensation increases: None.
Preretirement terminations and deaths: None.
Retirement age: 65.

Date of birth for the sole participant Smith (owner-employee): 1/1/54.

Tax status of Smith: Self-employed.

Gross 1994 earned income (after all deductions other than plan contributions) for Smith: $84,000.

Selected annuity value:

$\ddot{a}_{65}^{(12)} = 10$

Question 23

In what range is the minimum required contribution for 1994 payable 12/31/94?

(A) Less than $11,000

(B) $11,000 but less than $11,500

(C) $11,500 but less than $12,000

(D) $12,000 but less than $12,500

(E) $12,500 or more

1994

Data for Question 24

Defined benefit plan provisions:

Plan effective date: 1/1/89.
Normal retirement benefit: 100% of final 3-year average gross compensation.

Profit-sharing and 401(k) plan provisions:

Plan effective date: 1/1/88.
Employer contributions: 10% of gross compensation.

Top-heavy ratio for 1988 through 1993: 92%.

Data for participant Smith:

Date of birth 1/1/29
Date of hire 1/1/88
Date of retirement 1/1/94

Year	Gross Compensation	401(k) Deferrals
1988	$ 86,000	$7,313
1989	90,000	7,627
1990	89,000	7,979
1991	91,000	8,475
1992	97,000	8,728
1993	100,000	8,994

Defined benefit dollar limitation under IRC section 415 for 1994: $118,800.

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

Question 24

In what range is the maximum annual benefit payable to Smith in 1994 from the defined benefit plan?

(A) Less than $28,500

(B) $28,500 but less than $29,000

(C) $29,000 but less than $29,500

(D) $29,500 but less than $30,000

(E) $30,000 or more

1994

Data for Question 25

Actuarial cost method: Aggregate.

Valuation interest rate: 7% per year.

Interest rate for late quarterly contributions for 1994: 9.40% per year.

Normal cost for 1993 as of 1/1/93: $50,000.

Normal cost for 1994 as of 1/1/94: $100,000.

Credit balance in funding standard account as of 12/31/92 and 12/31/93: $0.

Additional funding charge for 1993 as of 12/31/93: $10,000.

Additional funding charge for 1994 as of 12/31/94: $0.

Contributions for 1994 paid before 9/15/95: $0.

Question 25

In what range is the minimum required contribution for 1994 payable 9/15/95?

(A) Less than $108,500

(B) $108,500 but less than $109,500

(C) $109,500 but less than $110,500

(D) $110,500 but less than $111,500

(E) $111,500 or more

1994

Data for Question 26

Plan effective date: 1/1/81.

Actuarial cost method: Frozen initial liability.

Valuation interest rate: 7% per year.

Current liability interest rate: 8% per year.

Increase in unfunded liability due to change in mortality assumption on 1/1/92: $50,000.

Credit balance in funding standard account as of 12/31/93: $1,900.

Net amortization charges in funding standard account as of 1/1/94: $20,000.

Selected valuation results as of 1/1/94:

Normal cost as of 1/1	$ 24,000
Actuarial (market) value of assets	205,000
Normal cost under entry age normal method as of 1/1	25,000
Accrued liability under entry age normal method	235,000
Current liability projected to 12/31	185,000
Expected benefit payments for 1994	0

The contribution for 1994 was paid on 12/31/94 in an amount equal to the deductible limit for 1994.

Question 26

In what range is the credit balance in the funding standard account as of 12/31/94?

(A) Less than $10,000

(B) $10,000 but less than $11,000

(C) $11,000 but less than $12,000

(D) $12,000 but less than $13,000

(E) $13,000 or more

1994

Data for Question 27

Plan effective date: 1/1/92.

Plan year: Calendar year.

Plan sponsor's tax year: 7/1 - 6/30.

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

The plan sponsor was granted an extension to file the tax return for the tax year ending 6/30/94 to 3/15/95.

Actuarial cost method: Entry age normal.

Valuation interest rate: 7% per year.

Accrued liability as of 1/1/92: $100,000.

Experience loss during 1992: $20,000.

Experience loss during 1993: $80,000.

Credit balance in funding standard account as of 12/31/93: $3,000.

Normal cost for 1994 plan year as of 1/1/94: $50,000.

Contribution for 1994 plan year: $100,000 paid on 12/31/94.

Question 27

In what range is the portion of the contribution for the 1994 plan year which is not deductible for the tax year ending 6/30/94?

(A) Less than $16,000

(B) $16,000 but less than $17,500

(C) $17,500 but less than $19,000

(D) $19,000 but less than $20,500

(E) $20,500 or more

1994

Data for Question 28

Plan effective date: 1/1/85.

Actuarial cost method:

Before 1994: Entry age normal.
After 1993: Aggregate.

Valuation interest rate: 7% per year.

Initial accrued liability: $500,000.

Decrease in accrued liability as of 1/1/89 due to plan amendment: $70,000.

Decrease in accrued liability as of 1/1/91 due to changes in actuarial assumptions: $40,000.

Credit balance in funding standard account as of 12/31/92: $0.

Normal cost for 1993 as of 1/1/93: $50,000.

Full funding limitation for 1993 based on accrued liability: $80,000.

Full funding limitation for 1993 based on 150% of current liability: $50,000.

Credit balance in funding standard account as of 12/31/93: $0.

Selected valuation results as of 1/1/94:

Present value of future benefits	$1,200,000
Actuarial value of assets	800,000
Present value of future compensation	2,400,000
Annual compensation	200,000

There have been no experience gains or losses.

Question 28

In what range is the minimum required contribution for 1994 payable 12/31/94?

(A) Less than $35,000

(B) $35,000 but less than $36,000

(C) $36,000 but less than $37,000

(D) $37,000 but less than $38,000

(E) $38,000 or more

1994

Data for Question 29

Plan effective date: 1/1/80.

Type of plan: Contributory.

Date of plan termination: 12/31/93.

Date of distribution of assets: 12/31/94.

The plan provides for a reversion of residual assets to the plan sponsor upon plan termination.

Upon plan termination, the portion of residual assets attributable to employee contributions is determined under ERISA section 4044.

There is no replacement plan after the plan termination.

Smith, Brown, Green, and Jones are the only participants ever covered under the plan.

Smith and Brown each received a lump sum distribution equal to the present value of his total benefit on a termination basis as of 10/1/90 and 3/31/92, respectively.

Market value of assets as of 12/31/94: $325,750.

Present value of accrued benefits on a termination basis:

ERISA Section 4044 Priority Category	As of 10/1/90 Smith	As of 3/31/92 Brown	As of 12/31/94 Green	As of 12/31/94 Jones
1	$ 0	$ 2,000	$ 5,000	$ 0
2	5,000	25,000	25,000	20,000
3-6	55,000	60,000	75,000	100,000
Total	60,000	87,000	105,000	120,000

Green and Jones each will receive a lump sum distribution equal to the present value of his total benefit on a termination basis.

Question 29

In what range is the excise tax on the reversion to the plan sponsor?

(A) Less than $38,000

(B) $38,000 but less than $39,000

(C) $39,000 but less than $40,000

(D) $40,000 but less than $41,000

(E) $41,000 or more

1994

Data for Question 30

Consider the following statements regarding Department of Labor and Internal Revenue Service regulations:

I. Plan fiduciaries who are also plan participants may receive loans from a qualified plan.

II. If a loan is faulty in its terms or operation, it is a taxable distribution to the plan participant.

III. A loan to a plan participant which is secured by the participant's accrued benefit is not subject to spousal consent.

Question 30

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.

1994

Data for Question 31

Plan effective date: 1/1/90.

Actuarial cost method: Individual level premium.

Actuarial assumptions:

> Valuation interest rate: 8% per year.
> Current liability interest rate: 8% per year.
> Compensation increases: None.
> Preretirement deaths and terminations: None.
> Retirement age: 62.

Date of birth for sole participant: 1/1/50.

Credit balance in funding standard account as of 12/31/93: $0.

Selected valuation results as of 1/1/94:

Accrued liability	$ 32,000
Present value of future benefits	120,000
Actuarial value of assets	29,500
Market value of assets	28,000
Current liability projected to 12/31	27,000

There were no experience gains or losses before 1993.

There have been no changes in the participant's compensation.

Question 31

In what range is the deductible limit for 1994?

(A) Less than $10,000

(B) $10,000 but less than $10,200

(C) $10,200 but less than $10,400

(D) $10,400 but less than $10,600

(E) $10,600 or more

1994

Data for Question 32

Salaried plan effective date: 1/1/93.

Actuarial cost method: Entry age normal.

Valuation interest rate: 8% per year.

Initial accrued liability: $1,000,000.

Experience gain during 1993: $25,000.

Credit balance in funding standard account as of 12/31/93: $50,000.

Normal cost for 1994 as of 1/1/94: $90,000.

Unfunded current liability as of 12/31/94: $250,000.

The employer also sponsors a plan for hourly employees.

Number of active participants on each day of plan year:

Year	Salaried Plan	Hourly Plan
1993	35	60
1994	40	70

The contribution for 1994 was paid on 7/1/94 in an amount equal to the deductible limit for 1994.

Question 32

In what range is the credit balance in the funding standard account as of 12/31/94?

(A) Less than $124,000

(B) $124,000 but less than $128,000

(C) $128,000 but less than $132,000

(D) $132,000 but less than $136,000

(E) $136,000 or more

1994

Data for Question 33

Plan effective date: 7/1/91.

Actuarial cost method:

Before 7/1/93: Entry age normal.
After 6/30/93: Unit credit.

Valuation interest rate: 7% per year.

Credit balance in funding standard account as of 6/30/93: $4,000.

Unfunded accrued liability under unit credit method as of 7/1/93: $430,000.

Selected amortization charges in funding standard account as of 7/1/93:

Due to initial accrued liability	$30,000
Due to plan amendment on 7/1/92	5,000
Due to experience loss during plan year ending 6/30/92	3,500

There have been no experience gains or losses other than an experience loss during the plan year ending 6/30/92.

Question 33

In what range is the amortization credit as of 7/1/93 in the funding standard account for the plan year beginning 7/1/93 due to the change in actuarial cost method?

(A) Less than $2,600

(B) $2,600 but less than $2,700

(C) $2,700 but less than $2,800

(D) $2,800 but less than $2,900

(E) $2,900 or more

1994

Data for Question 34

Effective date of defined benefit plan: 1/1/91.

Effective date of 401(k) plan: 1/1/94.

Actuarial cost method: Frozen initial liability.

Valuation interest rate: 7% per year.

Normal cost in defined benefit plan for 1994 as of 1/1/94: $400,000.

Amortization charge as of 1/1/94 for initial unfunded liability: $50,000.

Selected data in 401(k) plan as of 12/31/94:

1994 gross compensation	$2,318,000
Employee deferrals	118,000
Employer matching contributions	12,000

No employee has 1994 gross compensation in excess of $150,000.

The contributions for 1991 through 1994 were paid on 12/31 each year in amounts equal to the deductible limit each year.

All employees are covered by both plans.

Question 34

In what range is the contribution to the defined benefit plan for 1994?

(A) Less than $360,000

(B) $360,000 but less than $400,000

(C) $400,000 but less than $440,000

(D) $440,000 but less than $480,000

(E) $480,000 or more

1994

Data for Question 35

Type of plan: Multiemployer.

History of contribution base units for Employer A:

1982	220,000
1983	200,000
1984	145,000
1985	180,000
1986	140,000
1987	125,000
1988	56,000
1989	50,000
1990	30,000
1991	40,000
1992	50,000
1993	10,000

Question 35

In what year did Employer A experience a partial withdrawal due to a 70% decline in contribution base units?

(A) 1989 or earlier

(B) 1990

(C) 1991

(D) 1992

(E) 1993

NOVEMBER 1994 COURSE P-365U (EA2)

ANSWER KEY

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