AMERICAN SOCIETY OF ENROLLED ACTUARIES
JOINT BOARD FOR THE ENROLLMENT OF ACTUARIES
SOCIETY OF ACTUARIES

**Enrolled Actuaries Pension Examination, Segment L**

# EA-2, Segment L

Date: Thursday, May 9, 2024

## INSTRUCTIONS TO CANDIDATES

1. Special conditions generally applicable to all questions on this examination are found in a separate .PDF on the computer screen.
2. All questions should be answered in accordance with laws, rules and regulations in effect as of November 30, 2023.
3. This examination consists of 45 True/False or multiple-choice questions worth a total of 100 points. The point value for each question is shown in parentheses at the beginning of each question.
4. 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.
5. Do not spend too much time on any one question. If a question seems too difficult, leave it and go on.
6. 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 computer screen.
7. Use the scratch paper booklets provided by Prometric for your scratch work. Extra scratch paper booklets are available if you run out of scratch paper in the booklet provided to you.

**Answer Key EA-2L Spring 2024**
**February 28, 2024**

| Question | Answer |
|---|---|
| 1 | B |
| 2 | A |
| 3 | B |
| 4 | A |
| 5 | B |
| 6 | B |
| 7 | B |
| 8 | B |
| 9 | B |
| 10 | B |
| 11 | A |
| 12 | A |
| 13 | B |
| 14 | B |
| 15 | B |
| 16 | A |
| 17 | A |
| 18 | A |
| 19 | C |
| 20 | A |
| 21 | C |
| 22 | B |
| 23 | B |
| 24 | A |
| 25 | A |
| 26 | C |
| 27 | B |
| 28 | C |
| 29 | C |
| 30 | D |
| 31 | C |

| | |
|---|---|
| 32 | B |
| 33 | C |
| 34 | B |
| 35 | A |
| 36 | C |
| 37 | D |
| 38 | D |
| 39 | D |
| 40 | C |
| 41 | B |
| 42 | E |
| 43 | A |
| 44 | A |
| 45 | B |

Data for Question 1 (1 point)

A plan sponsor missed the $1,150,000 quarterly contribution due which resulted in a lien arising under ERISA section 303(k) and IRC section 430(k). Sixty days after the quarterly contribution due date, the sponsor paid the full amount of the quarterly contribution plus late interest and penalties. Form 200 was never filed with the PBGC. The ERISA section 4010 FTAP for the information year is 84%.

Consider the following statement:

> An ERISA section 4010 filing is not required for the information year.

Question 1

Is the above statement true or false?

(A) True

(B) False

Data for Question 2 (1 point)

Consider the following statement:

> Under ERISA section 4010, in order for a plan to be considered an exempt plan for the information year, the value of benefit liabilities may be determined using the same retirement assumptions as used for funding purposes for the plan year ending within that information year without regard to at-risk assumptions.

Question 2

Is the above statement true or false?

(A) True

(B) False

Data for Question 3 (1 point)

A plan provides a normal retirement benefit equal to 1.0% of final average compensation times years of benefit service.

The normal retirement age under the plan is the earlier of age 65, or age 62 with at least 10 years of service.

There are no collectively bargained employees in the plan.

Consider the following statement:

> The plan automatically satisfies the nondiscrimination requirements under IRC section 401(a)(4).

Question 3

Is the above statement true or false?

(A) True

(B) False

Data for Question 4 (1 point)

Type of plan: Multiemployer

Suspension of benefits notices are provided timely.

Participant Smith commences benefit payments at age 60.

Smith returns to work at age 67 for one calendar month, working 40 hours in the same industry, trade, and geographic area covered by the plan as when his benefit payments commenced.

Consider the following statement:

> The plan may provide for the withholding of Smith's benefit amount for the month in which he is reemployed.

Question 4

Is the above statement true or false?

(A) True

(B) False

Data for Question 5 (1 point)

Participant Smith has a QDRO in effect that assigned a portion of his accrued benefit from a plan to his former spouse, Brown.

Brown is remarried at the time she becomes eligible to receive a distribution subject to the terms of the QDRO.

Consider the following statement:

> The plan must permit Brown to elect a joint and survivor option with her subsequent spouse as the beneficiary.

Question 5

Is the above statement true or false?

(A) True

(B) False

Data for Question 6 (1 point)

A company sponsors a plan for employees in Divisions A and B.

Employees of Division A benefit under a statutory hybrid (cash balance) formula.

Employees of Division B benefit under a final average pay formula.

Consider the following statement:

All employees in the plan are subject to a minimum 3-year vesting schedule.

Question 6

Is the above statement true or false?

(A) True

(B) False

Data for Question 7 (1 point)

Valuation Date: 1/1/2024

Consider the following statement:

> The PBGC Variable-rate premium per $1,000 of unfunded vested benefits and the per participant cap on the PBGC Variable-rate premium are both subject to indexation by inflation each year.

Question 7

Is the above statement true or false?

(A) True

(B) False

Data for Question 8 (1 point)

Consider the following statement:

> The excise tax for failure to receive minimum required distributions during 2024 is 50% of the value of such payments.

Question 8

Is the above statement true or false?

(A) True

(B) False

Data for Question 9 (1 point)

A plan is undergoing a standard termination.

The plan specifies that all excess assets will revert to the employer.

The plan does not provide for pro rata benefit increases.

A replacement plan is established; 50% of excess assets are transferred to the replacement plan.

90% of the active participants in the terminated plan remain as active participants in the replacement plan.

Consider the following statement:

> The excise tax on the amount of asset reversion from the plan is 20%.

Question 9

Is the above statement true or false?

(A) True

(B) False

Data for Question 10 (1 point)

A plan has two trustees. A prohibited transaction occurs when one of the trustees borrows money from the plan. The other trustee knew of the transaction but did not make reasonable efforts to remedy the fiduciary breach.

An excise tax is imposed because of the prohibited transaction.

Consider the following statement:

> The excise tax is only imposed upon the trustee who borrowed the money.

Question 10

Is the above statement true or false?

(A) True

(B) False

Data for Question 11 (1 point)

A plan has assets that are held in trust.

Consider the following statement:

> The plan sponsor can name the same person to serve as both ERISA plan administrator and trustee.

Question 11

Is the above statement true or false?

(A) True

(B) False

Data for Question 12 (1 point)

Smith, an enrolled actuary, states to Jones that Smith provides actuarial services to companies for which Smith does not provide such services. Jones did not believe Smith's statement. Jones later hires Smith as an enrolled actuary.

Consider the following statement:

> Smith has violated the Joint Board regulations for enrolled actuaries.

Question 12

Is the above statement true or false?

(A) True

(B) False

Data for Question 13 (1 point)

A plan terminates during 2023.

The plan allows for lump sum payments of a participant's entire benefit.

The 2023 AFTAP was certified as 77.00% on 1/1/2023.

Consider the following statement:

> Participants cannot receive their entire benefit as a lump sum distribution as part of the plan termination.

Question 13

Is the above statement true or false?

(A) True

(B) False

Data for Question 14 (1 point)

A plan was effective 1/1/2010.

The normal form of benefit is a 10-year certain and life annuity.

Selected data for participant Smith:

| | |
|---|---|
| Date of birth | 7/1/1957 |
| Date of hire | 1/1/2011 |
| Date of retirement | 7/1/2024 |
| Annual compensation for each year | $50,000 |

Consider the following statement:

> On the date of retirement Smith can receive an annual benefit of $50,000 under the normal form of benefit.

Question 14

Is the above statement true or false?

(A) True

(B) False

Data for Question 15 (1 point)

Selected data for participant Smith as of 1/1/2023:

| | |
|---|---|
| Date of hire | 1/1/2011 |
| Highest 3-year average annual compensation | $6,000 |
| Annual accrued benefit under the plan (before the application of IRC section 415) | 9,500 |

Smith has never been a participant in a defined contribution plan nor any other defined benefit plan.

Consider the following statement:

> As of 1/1/2023, Smith's annual accrued benefit payable from the plan is limited to $6,000.

Question 15

Is the above statement true or false?

(A) True

(B) False

Data for Question 16 (1 point)

A plan was effective in 2010 and has been top-heavy for all years.

Smith is not an officer of the plan sponsor and has earned $145,000 for each year of employment.

Smith has no direct ownership in the plan sponsor.

Smith's father owns 4% of the stock of the plan sponsor.

Consider the following statement:

> Smith was a non-key employee for the 2023 plan year.

Question 16

Is the above statement true or false?

(A) True

(B) False

Data for Question 17 (1 point)

Smith is a 7% owner and officer of a plan sponsor and has annual compensation of $125,000.

Consider the following statement:

> Smith is a key employee for purposes of determining if a plan sponsored by Smith's company is subject to top-heavy requirements.

Question 17

Is the above statement true or false?

(A) True

(B) False

Data for Question 18 (1 point)

An employer sponsors defined benefit Plan A and defined benefit Plan B.

The employer is required to combine the above plans for purposes of top-heavy testing as a required aggregation group. The required aggregation group is determined to be top-heavy.

Consider the following statement:

Both Plan A and Plan B are considered top-heavy.

Question 18

Is the above statement true or false?

(A) True

(B) False

Data for Question 19 (2 points)

Selected data for a plan:

| Date | Number of active participants |
| --- | --- |
| 1/1/2022 | 4,500 |
| 1/1/2023 | 4,000 |

As of 12/31/2023, the plan does not qualify for a waiver of a reportable event as defined under ERISA section 4043.

***X*** = the smallest possible number of active participants on 12/31/2023 that will **not** trigger a reportable event due to attrition.

Question 19

In what range is ***X***?

(A) Less than 2,950

(B) 2,950 but less than 3,150

(C) 3,150 but less than 3,350

(D) 3,350 but less than 3,550

(E) 3,550 or more

Data for Question 20 (2 points)

A plan has 1,000 participants.

Selected valuation results as of 1/1/2024:

| | |
|---|---|
| Funding standard carryover balance | $25,000,000 |
| Prefunding balance | 10,000,000 |
| Market value of assets | 260,000,000 |
| Actuarial value of assets | 240,000,000 |
| Not-at-risk funding target based on stabilized rates | 300,000,000 |
| Not-at-risk funding target based on non-stabilized rates | 370,000,000 |

***X%*** = the 2024 funding target attainment percentage used to determine whether the plan's funded status triggers a PBGC 4010 filing requirement for the 2024 information year.

Question 20

In what range is ***X%***?

(A) Less than 56.00%

(B) 56.00% but less than 59.00%

(C) 59.00% but less than 62.00%

(D) 62.00% but less than 65.00%

(E) 65.00% or more

Data for Question 21 (2 points)

Selected data:

| | HCE | NHCE |
|---|---|---|
| Total eligible employees | 45 | 275 |
| Employees benefiting | 32 | 140 |

All benefit accruals in the plan are meaningful.

Consider the following statements:

I. The plan passes the IRC section 401(a)(26) minimum participation test.

II. The plan passes the IRC section 410(b) minimum coverage test requiring 70% of NHCEs to benefit.

III. The plan passes the IRC section 410(b) minimum coverage test requiring the ratio of the percentage of NHCEs benefiting to the percentage of HCEs benefiting to exceed 70%.

Question 21

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

Data for Question 22 (4 points)

Type of plan: Statutory hybrid (cash balance)

Selected plan provisions:

| | |
|---|---|
| Normal retirement age | 62 |
| Interest crediting rate | 5.0% |
| Plan actuarial equivalence rate | 4.5% |

IRC section 401(a)(26) testing methods and assumptions as of the testing date:

| | |
|---|---|
| Measurement period | Plan year |
| Testing date | 12/31/2023 |
| Testing compensation | Average annual compensation |
| Minimum benefiting percentage | 0.50% |

Selected factors for converting cash balance account to the annual benefit payable in the plan's normal form of payment:

| | |
|---|---|
| $\ddot{a}_{62}^{(12)}$ at 5% | 13.5310 |
| $\ddot{a}_{62}^{(12)}$ at 4.5% | 14.2140 |

Selected data for participant Smith as of 12/31/2023 (unless otherwise stated):

| | |
|---|---|
| Age | 53 |
| Years of service | 11 |
| 2023 compensation | $49,000 |
| Average annual compensation | 45,000 |
| Account balance on 12/31/2022 | 18,000 |
| 2023 pay credit | 375 |

***$X*** = The additional 2023 pay credit necessary for Smith to meet the IRC section 401(a)(26) requirement for the plan.

Question 22

In what range is ***$X***?

(A) Less than $1,630

(B) $1,630 but less than $1,745

(C) $1,745 but less than $1,860

(D) $1,860 but less than $1,975

(E) $1,975 or more

Data for Question 23 (3 points)

| | |
|---|---|
| Early retirement eligibility | Age 55 and 10 years of service |
| Early retirement benefit | Accrued benefit reduced 5% for each year benefits commence prior to age 62 |

| Optional forms of payment | Plan conversion factor from life annuity at age 62 | Plan conversion factor from life annuity at age 60 |
|---|---|---|
| 25% joint and survivor annuity | 0.96 | 0.94 |
| 50% joint and survivor annuity (QJSA) | 0.92 | 0.90 |
| 75% joint and survivor annuity | 0.88 | 0.86 |

Selected data for participant Smith:

| | |
|---|---|
| Date of birth | 1/1/1964 |
| Spouse's date of birth | 1/1/1963 |
| Date of hire | 1/1/2014 |
| Date of death | 1/1/2024 |
| Monthly accrued benefit at 1/1/2024 | $1,200 |

At death, Smith had been married for over one year.

***$X*** = the monthly qualified pre-retirement survivor benefit payable to Smith's spouse at the earliest commencement date.

Question 23

In what range is ***$X***?

(A) Less than $440

(B) $440 but less than $510

(C) $510 but less than $580

(D) $580 but less than $650

(E) $650 or more

Data for Question 24 (3 points)

Plan type: Statutory hybrid (cash balance)

| | |
|---|---|
| Pay credit | 4.5% of compensation |
| Interest crediting rate | 3% |
| Actuarial equivalence | 5% and applicable mortality table |

Participants must be credited with a minimum of 1,000 hours in a year to earn a pay credit.

Selected data for participant Smith:

| | |
|---|---|
| Date of birth | 1/1/1959 |
| Date of hire | 1/1/2017 |

| Year | Compensation | Hours |
|---|---|---|
| 2017 | $ 60,000 | 2,000 |
| 2018 | 63,000 | 2,000 |
| 2019 | 66,000 | 2,000 |
| 2020 | 67,000 | 2,000 |
| 2021 | 70,000 | 2,000 |
| 2022 | 30,000 | 800 |
| 2023 | 30,000 | 800 |

***$X*** = Smith's hypothetical account balance as of 12/31/2023.

Question 24

In what range is **$*X***?

(A) Less than $16,600

(B) $16,600 but less than $17,600

(C) $17,600 but less than $18,600

(D) $18,600 but less than $19,600

(E) $19,600 or more

Data for Question 25 (4 points)

The normal form of payment in a plan for unmarried participants is a single life annuity.

The normal form of payment in the plan for married participants is a 50% joint and survivor annuity (QJSA).

The plan always provides timely suspension of benefits notices.

Selected data for participant Smith:

| | |
|---|---|
| Age at retirement | 66 |
| Spouse's age at retirement | 65 |
| Monthly accrued benefit at retirement | $1,500 |

Select actuarial factors for participant:

| 417(e) actuarial basis | Single life present value factor | QJSA present value factor |
|---|---|---|
| Age 65 | 12.6647 | 13.6185 |
| Age 66 | 12.3648 | 13.3339 |

| Plan actuarial equivalence basis | Single life present value factor | QJSA present value factor |
|---|---|---|
| Age 65 | 11.8622 | 12.8071 |
| Age 66 | 11.6001 | 12.5581 |

***$X*** = the minimum monthly QJSA benefit payable to Smith upon retirement.

Question 25

In what range is ***$X***?

(A) Less than $1,387

(B) $1,387 but less than $1,419

(C) $1,419 but less than $1,451

(D) $1,451 but less than $1,483

(E) $1,483 or more

Data for Question 26 (3 points)

Selected plan provisions:

| | |
|---|---|
| Participation | The 1/1 or 7/1 on or after meeting statutory service requirements |
| Vesting | 6-year graded |
| Normal retirement date | Latest statutory date allowed |
| Benefit formula | $50 per month for each year of service |

Suspension of benefits notices are provided timely.

The plan provides the latest participation date and the smallest delayed retirement benefit allowed by law.

Selected data for participant Smith:

| | |
|---|---|
| Date of birth | 1/1/1954 |
| Date of hire | 1/1/2014 |
| Hours worked in each month | 170 |

Smith retires exactly 3 years after his normal retirement date.

Question 26

In what range is Smith's monthly benefit at retirement?

(A) Less than $420

(B) $420 but less than $445

(C) $445 but less than $470

(D) $470 but less than $495

(E) $495 or more

Data for Question 27 (2 points)

The qualified joint and survivor annuity (QJSA) is a 50% survivor annuity.

Early retirement reduction: 4% per year
Earliest retirement age: 60

Select plan factors:

| Age | QJSA actuarial equivalence |
|---|---|
| 57 | 0.937 |
| 60 | 0.955 |
| 65 | 0.978 |

Participant Smith dies at age 57 with a monthly accrued benefit of $840.

***$X*** = monthly benefit payable to Smith's surviving spouse at the earliest allowable date.

Question 27

In what range is ***$X***?

(A) Less than $300

(B) $300 but less than $350

(C) $350 but less than $400

(D) $400 but less than $450

(E) $450 or more

Data for Question 28 (4 points)

Plan type: Statutory hybrid (cash balance)

| | |
|---|---|
| Pay credit rate | 7% |
| Interest crediting rate | 4% |
| Actuarial equivalence | 5% and applicable mortality table |

Selected factors using the plan definition of actuarial equivalence for converting the cash balance account to the annual benefit payable in the plan normal form of payment:

| | |
|---|---|
| Age 60 | 13.4642 |
| Age 65 | 12.0504 |

Selected data for participant Smith:

| | |
|---|---|
| Date of birth | 12/31/1964 |
| Date of hire | 1/1/2021 |

| Year | Compensation |
|---|---|
| 2021 | $275,000 |
| 2022 | 280,000 |
| 2023 | 350,000 |
| 2024 | 330,000 |

Smith earns a pay credit in each year.

***$X*** = Smith's monthly accrued benefit as of 12/31/2024.

Question 28

In what range is **$*X***?

(A) Less than $705

(B) $705 but less than $735

(C) $735 but less than $765

(D) $765 but less than $795

(E) $795 or more

Data for Question 29 (4 points)

Selected plan provisions:

| | |
|---|---|
| Benefit formula for service before 1/1/2020 | 4% of average compensation per year of service |
| Benefit formula for service after 12/31/2019 | Statutory hybrid (cash balance) |
| | Annual pay credit 4% of compensation |
| | Interest crediting rate 3% |
| Actuarial equivalence interest rate | 5% |
| Early retirement eligibility | Age 55 and 10 years of service |

Selected data for participant Smith:

| | |
|---|---|
| Date of birth | 12/31/1963 |
| Date of hire | 1/1/2012 |
| Date of retirement | 12/31/2023 |
| Annual Compensation for each year | $80,000 |

Selected factors:

| | $\ddot{a}_{60}^{(12)}$ | $\ddot{a}_{65}^{(12)}$ |
|---|---|---|
| Plan actuarial equivalence | 13.25 | 11.79 |
| Applicable IRC section 417(e) assumptions | 15.51 | 14.81 |

Question 29

In what range is the monthly benefit payable to Smith on 12/31/2023?

(A) Less than $1,505

(B) $1,505 but less than $1,565

(C) $1,565 but less than $1,625

(D) $1,625 but less than $1,685

(E) $1,685 or more

Data for Question 30 (3 points)

Companies A and B, members of the same controlled group, sponsor Plans Y and Z, respectively.

Selected information as of 1/1/2023:

| | Company A | Company B |
|---|---|---|
| Number of employees | 23 | 10 |

| | Plan Y |
|---|---|
| Plan effective date | 1/1/2015 |
| Number of participants | 20 |
| Funding balances | $20,000 |
| Market value of assets | 90,000 |
| Actuarial value of assets | 99,000 |
| Present value of vested benefits | |
| Using PBGC segment rates | 160,000 |
| Using non-stabilized IRC 430 segment rates | 150,000 |

The plan sponsors have paid PBGC premiums using the Standard Method since inception.

The plans opted out of the Small Plan Lookback Rule at inception.

***$X*** = the smallest PBGC Variable-rate premium due for Plan Y for the 2023 premium payment year

Question 30

In what range is ***$X***?

(A) Less than $1,950

(B) $1,950 but less than $2,400

(C) $2,400 but less than $2,850

(D) $2,850 but less than $3,300

(E) $3,300 or more

Data for Question 31 (3 points)

Consider the following statements regarding PBGC premiums:

I. An election to use the alternative premium funding target for Variable-rate premium calculation purposes cannot be made with an amended Comprehensive Premium filing even if it is made on or before the original Comprehensive Premium filing's due date.

II. PBGC permission must be requested at least 60 days before the premium due date if a Small Plan that opted out of using the Lookback Rule in the past now wants to start using the Lookback Rule.

III. PBGC permission is not required to prorate the premium for a Short Plan Year caused by a change in the plan's plan year.

Question 31

Which, if any, of the above 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

Data for Question 32 (4 points)

A plan sponsor elected to use the alternative method for determining PBGC Variable-rate premiums effective for the 2018 plan year.

Select results as of 1/1/2023:

| | |
|---|---|
| Market value of assets (excluding receivable contributions) | $41,500,000 |
| Actuarial value of assets (excluding receivable contributions) | 42,000,000 |
| Alternative premium funding target | 66,000,000 |
| Standard premium funding target | 63,000,000 |
| Number of participants for PBGC premium calculation purposes | 1,520 |
| Funding balances | $500,000 |

2022 plan year receivable contributions:

| Date paid | Amount |
|---|---|
| 1/15/2023 | $2,000,000 |
| 4/15/2023 | 2,000,000 |

2022 plan year effective interest rate: 5.52%

The 2023 Premium Filing was submitted on 10/10/2023.

***$X*** = the amount by which the plan sponsor could reduce the plan's PBGC Variable-rate premium by revoking the alternative method for the 2023 plan year.

Question 32

In what range is ***$X***?

(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 33 (4 points)

Plan effective date: 1/1/2002

Normal retirement benefit, before amendment: $360 per month for each year of service

Normal form of payment: 15-year certain and life annuity

Early retirement: Age 55

Early retirement reduction: 3% per year prior to normal retirement

Data for participant Smith:

| | |
|---|---|
| Date of birth | 1/1/1959 |
| Date of hire | 1/1/2004 |
| Date of retirement | 1/1/2021 |
| Form of payment | Normal form |
| Annual compensation each year | $200,000 |

A plan amendment was adopted and effective 1/1/2022 that provided all participants who are in pay status a one-time 4% benefit increase.

Plan termination date: 1/1/2023

***$X*** = Smith's PBGC guaranteed monthly benefit payable at plan termination.

Question 33

In what range is ***$X***?

(A) Less than $5,500

(B) $5,500 but less than $5,550

(C) $5,550 but less than $5,600

(D) $5,600 but less than $5,650

(E) $5,650 or more

Data for Question 34 (3 points)

Company A is terminating its plan in a standard termination.

The market value of plan assets is $3,000,000.

All employees who are eligible to forego benefits do so.

Selected employee data:

| | Direct ownership of Company A | Present Value of Benefit |
|---|---|---|
| Smith | 55% | $1,100,000 |
| Brown | 40% | 400,000 |
| Smith's spouse | 5% | 600,000 |
| Other employees | 0% | 3,200,000 |

Question 34

In what range is the smallest contribution necessary to make the plan sufficient to pay benefits?

(A) Less than $375,000

(B) $375,000 but less than $625,000

(C) $625,000 but less than $875,000

(D) $875,000 but less than $1,125,000

(E) $1,125,000 or more

Data for Question 35 (3 points)

Plan type: Multiemployer

The plan is first certified in Critical Status for 2024.

The Notice of Critical Status is sent timely to participants.

The plan sponsor reduces Adjustable Benefits on 8/1/2024 to the maximum extent allowed based on the benefit features described below.

Smith commences a disability retirement on 9/1/2024 and elects a single life annuity.

Monthly normal retirement benefit for Smith:

| | |
|---|---|
| Based on plan's original benefit formula | \$3,000 |
| Including benefit improvements adopted and effective 7/1/2019 | 3,300 |
| Including benefit improvements adopted and effective 1/1/2020 | 3,600 |

Actuarial factors for Smith on 9/1/2024:

| | |
|---|---|
| Actuarial equivalent early retirement reduction factor | 0.70 |
| Subsidized early retirement reduction factor | 0.90 |
| Disability retirement reduction factor | 1.00 |

Question 35

In what range is the monthly benefit payable to Smith on 9/1/2024?

(A) Less than \$2,150

(B) \$2,150 but less than \$2,600

(C) \$2,600 but less than \$3,050

(D) \$3,050 but less than \$3,500

(E) \$3,500 or more

Data for Question 36 (4 points)

Employer A is a contributing employer to a multiemployer plan.

Method for calculating withdrawal liability: Rolling-5 with the mandatory *de minimis* rule

Employer A completely withdraws from the plan on 7/1/2023.

No other employers have withdrawn from the plan.

| Year | Total Contributions | Employer A Contributions | Unfunded Vested Liability at 12/31 |
|---|---|---|---|
| 2018 | $1,300,000 | $30,000 | |
| 2019 | 1,200,000 | 28,000 | |
| 2020 | 1,000,000 | 28,000 | |
| 2021 | 1,100,000 | 26,000 | |
| 2022 | 1,000,000 | 23,000 | $4,000,000 |
| 2023 | 950,000 | 16,000 | 3,300,000 |

Question 36

In what range is the withdrawal liability for Employer A?

(A) Less than $45,000

(B) $45,000 but less than $60,000

(C) $60,000 but less than $75,000

(D) $75,000 but less than $90,000

(E) $90,000 or more

Data for Question 37 (3 points)

An employer sponsors a defined benefit plan.

The plan lends the employer $100,000 on 4/1/2023.

The terms of the promissory note for the loan include an interest rate of 9% per year.

The promissory note specifies that the employer will pay interest annually and will pay the principal on 8/1/2025.

The fair market rate of interest for 2023 is 7%.

***$X*** = the IRC section 4975 initial excise tax due to the prohibited transaction, if any, due for the taxable period in 2023.

Question 37

In what range is ***$X***?

(A) Less than $300

(B) $300 but less than $600

(C) $600 but less than $900

(D) $900 but less than $1,200

(E) $1,200 or more

Data for Question 38 (2 points)

Smith is the owner of a manufacturing company that sponsors a retirement plan.

Smith loans the plan $100,000 so that the plan can purchase a building from an unrelated third party. The plan pays Smith interest at 6% per annum, which is considered to be a fair market rate.

The plan leases the building to Smith's spouse. The lease payment is $700 per month, which is fair market value. The loan and the lease both start on the first day of the same plan year.

Question 38

In what range is the total prohibited transaction excise tax due for the first year?

(A) Less than $600

(B) $600 but less than $1,200

(C) $1,200 but less than $1,800

(D) $1,800 but less than $2,400

(E) $2,400 or more

Data for Question 39 (2 points)

Consider the following statements with respect to the standards of performance of actuarial services:

I. When preparing an actuarial report, an enrolled actuary shall ensure that the calculations are accurately carried out and properly documented.

II. When preparing an actuarial report stating actuarial costs or liabilities, an enrolled actuary shall include a statement or reference describing or clearly identifying the data, any material inadequacies therein and the implications thereof, and the actuarial methods and assumptions employed.

III. When preparing an actuarial report, an enrolled actuary shall ensure that except as mandated by law, the actuarial assumptions are reasonable individually and in combination.

Question 39

Which, if any, of the above 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

Data for Question 40 (2 points)

Enrolled actuary Smith provides a signed PBGC Schedule EA-S to be included in his client's PBGC Form 500 filing package. The client terminates Smith shortly thereafter. The client did not file the signed PBGC Schedule EA-S provided by Smith. Smith discovers that a different PBGC Schedule EA-S was filed by the client that was signed by enrolled actuary Jones. Smith must:

I. Provide written notification of a grievance against the client with the Internal Revenue Service.

II. Provide written notification of the non-filing of the Schedule EA-S to the PBGC.

III. Provide written notification of his termination to the Department of Labor.

Question 40

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

(A) None

(B) I only

(C) II only

(D) III only

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

Data for Question 41 (4 points)

Selected information as 1/1/2023:

| | |
|---|---|
| Market value of assets | $1,100,000 |
| Actuarial value of assets | 1,050,000 |

| | Participants benefiting as of 12/31/2022 | Premium funding target as of 1/1/2023 |
|---|---|---|
| Active | 24 | $250,000 |
| Terminated Vested | 26 | 150,000 |
| Retirees in pay status | 55 | 850,000 |
| QDRO alternate payees of active participants | 2 | 25,000 |
| Total | 107 | $1,275,000 |

The 2023 PBGC premium is paid on 1/15/2023.

During 2023, the plan completes a standard termination.

The final benefit distributions are completed 11/2/2023, an amended premium filing is completed in a timely manner, and a non-De Minimis Spinoff did not occur in 2023.

***$X*** = the premium refund due to the plan sponsor.

Question 41

In what range is ***$X***?

(A) Less than $9,000

(B) $9,000 but less than $10,000

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

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

(E) $12,000 or more

Data for Question 42 (3 points)

Selected data as 1/1/2023 that was used in a 2023 AFTAP certification issued on 7/15/2023:

| | |
|---|---|
| Funding balances | $0 |
| Market value of assets | 306,000 |
| Actuarial value of assets | 304,500 |
| Funding target | 385,000 |

Effective interest rates:

| | |
|---|---|
| 2022 | 4.50% |
| 2023 | 5.50% |

Annuity purchases:

| | NHCE | HCE |
|---|---|---|
| 2020 | $25,000 | $40,000 |
| 2021 | 20,000 | 25,000 |
| 2022 | 0 | 0 |

The plan is amended effective 9/1/2023. The increase in 1/1/2023 funding target due to the amendment was $50,000.

***$X*** = the IRC section 436 contribution made on 9/1/2023 that will enable the amendment to take effect.

Question 42

In what range is ***$X***?

(A) Less than $36,700

(B) $36,700 but less than $38,050

(C) $38,050 but less than $39,400

(D) $39,400 but less than $40,750

(E) $40,750 or more

Data for Question 43 (3 points)

Selected plan provisions:

| | |
|---|---|
| Effective date | 1/1/2023 |
| Benefit formula | 10% of average compensation per year of service |
| Normal form of benefit | Qualified joint and 100% survivor annuity |
| Actuarial equivalence | Applicable interest and mortality |

Selected data for married participant Smith:

| | |
|---|---|
| Date of birth | 12/31/1958 |
| Date of hire | 1/1/2010 |
| Date of retirement | 12/31/2023 |
| Annual compensation for each year | $30,000 |
| Form of benefit elected | Lump sum |

Selected annuity factors:

| | Life annuity | 100% J&S Annuity |
|---|---|---|
| 5.0% interest and applicable mortality table | 12.35 | 15.13 |
| 5.5% interest and applicable mortality table | 11.20 | 13.72 |
| Plan actuarial equivalence assumptions | 13.45 | 16.49 |

Question 43

In what range is the lump sum payable to Smith on 12/31/2023?

(A) Less than $300,000

(B) $300,000 but less than $320,000

(C) $320,000 but less than $340,000

(D) $340,000 but less than $360,000

(E) $360,000 or more

Data for Question 44 (3 points)

Normal retirement benefit: 10% of final 3-year average compensation for each year of service up to 10 years of service

Normal retirement age: Age 62

Data for participant Smith:

| | |
|---|---|
| Date of birth | 1/1/1962 |
| Date of hire | 1/1/2019 |
| Date of participation | 1/1/2020 |
| Annual compensation each year prior to 2023 | \$185,000 |
| 2023 compensation | 140,000 |

***$X*** = Smith's annual accrued benefit as of 1/1/2024.

Question 44

In what range is $***X***?

(A) Less than \$88,000

(B) \$88,000 but less than \$96,000

(C) \$96,000 but less than \$104,000

(D) \$104,000 but less than \$112,000

(E) \$112,000 or more

Data for Question 45 (3 points)

| | |
|---|---|
| Normal retirement benefit formula: | 1.25% of final 3-year average compensation for each year of service |
| Plan vesting schedule: | 100% vested after 5 years of service |
| Top-heavy vesting schedule: | 6-year graded |

The plan was determined to be top-heavy for 2017-2021 but not 2022.

The plan provides the minimum top-heavy benefit required under IRC section 416.

Data for non-key participant Smith:

Date of hire 1/1/2017

| Year | Compensation |
|---|---|
| 2017 | $48,000 |
| 2018 | 60,000 |
| 2019 | 63,000 |
| 2020 | 66,000 |
| 2021 | 70,000 |
| 2022 | 75,000 |

***$X*** = Smith's annual vested accrued benefit as of 1/1/2023

## Question 45

In what range is ***$X***?

(A) Less than $5,700

(B) $5,700 but less than $6,200

(C) $6,200 but less than $6,700

(D) $6,700 but less than $7,200

(E) $7,200 or more

****END OF EXAMINATION****