

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

Enrolled Actuaries Pension Examination, Segment F

EA-2, Segment F

Date: Thursday, November 6, 2025

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 May 31, 2025.
3. This examination consists of 62 multiple-choice questions of varying value. The point value for each question is shown in parentheses at the beginning of each question. Total point value is 160.
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-2F Fall 2025
August 13, 2025

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

32	B
33	A
34	B
35	B
36	B
37	C
38	C
39	C
40	A
41	C
42	E
43	C
44	A
45	A
46	B
47	C
48	E
49	B
50	B
51	B
52	B
53	B
54	A
55	B
56	D
57	B
58	A
59	D
60	B
61	C
62	D

Data for Question 1 (3 points)

Valuation date: 1/1/2026

Normal retirement benefit: 1.50% of final three-year average compensation per year of service

Segment rates: {5.00%, 6.00%, 7.00%}

Selected data for participant Smith as of 1/1/2026:

Gender	Male
Age	50
Service	10
2023 compensation	\$80,000
2024 compensation	90,000
2025 compensation	95,000

\$X is the funding target for Smith as of 1/1/2026.

Question 1

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

- (A) Less than \$52,000
- (B) \$52,000 but less than \$57,000
- (C) \$57,000 but less than \$62,000
- (D) \$62,000 but less than \$67,000
- (E) \$67,000 or more

Data for Question 2 (1 point)

The plan had more than 100 participants on each day during the 2026 plan year.

There is no funding shortfall for the 2026 plan year.

Consider the following statement:

There is no liquidity requirement for the 2027 plan year.

Question 2

Is the above statement true or false?

(A) True

(B) False

Data for Question 3 (1 point)

Valuation date: 1/1/2026

Consider the following statement:

An amendment increasing benefits effective for the 2026 plan year must be adopted before the end of the 2026 plan year to be reflected in the 1/1/2026 valuation.

Question 3

Is the above statement true or false?

- (A) True
- (B) False

Data for Question 4 (3 points)

Valuation date: 1/1/2026

Effective interest rate for 2026: 5.5%

Selected information as of 1/1/2026:

Actuarial (market) value of assets	\$28,980,000
Minimum required contribution	3,310,000

Valuation results calculated for IRC section 404 purposes:

Funding target	\$33,120,000
Target normal cost	2,480,000
Funding target with future earnings increases	39,330,000
At-risk funding target	37,260,000
At-risk target normal cost	2,900,000
At-risk funding target with future earnings increases	43,470,000

The plan is not in at-risk status for the 2026 plan year and has always had at least 500 participants.

\$X is the deduction limit for the 2026 plan year.

Question 4

In what range is \$X?

- (A) Less than \$25,300,000
- (B) \$25,300,000 but less than \$28,300,000
- (C) \$28,300,000 but less than \$31,300,000
- (D) \$31,300,000 but less than \$34,300,000
- (E) \$34,300,000 or more

Data for Question 5 (4 points)

Selected information as of January 1:

	<u>2025</u>	<u>2026</u>
Minimum required contribution	\$144,000	\$48,000
Effective interest rate	6.00%	7.00%

Prefunding balance as of 1/1/2025: \$4,200

All contributions made between 1/1/2025 and 9/15/2027:

<u>Date</u>	<u>Plan Year</u>	<u>Amount</u>
12/31/2025	2025	\$144,000
12/31/2026	2026	42,000

There are no unpaid minimum required contributions before the 2025 plan year.

There are no required quarterly installments for the 2025 and 2026 plan years.

The plan sponsor signs a standing election on 12/31/2024 to apply funding balances to meet minimum contribution requirements.

\$X is the initial excise tax due on the unpaid minimum required contribution for the 2026 plan year under IRC section 4971(a).

Question 5

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

- (A) Less than \$1,200
- (B) \$1,200 but less than \$1,270
- (C) \$1,270 but less than \$1,340
- (D) \$1,340 but less than \$1,410
- (E) \$1,410 or more

Data for Question 6 (4 points)

Plan type: Multiemployer

Valuation date: 1/1/2026

Asset valuation method: Smoothed market value using a smoothing period of three years, as described in Rev. Proc. 2000-40.

Valuation interest rate: 7.00%

Market value investment earnings in excess of expected during 2024: \$340,000

Selected asset information:

	<u>1/1/2025</u>	<u>1/1/2026</u>
Market value of assets	\$1,120,000	\$725,000

Sole contribution for the 2025 plan year, made on 4/1/2025: \$300,000

Combined benefit payments and expenses paid during 2025, assumed to be paid in the middle of the year: \$200,000.

\$X is the actuarial value of assets as of 1/1/2026.

Question 6

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

- (A) Less than \$600,000
- (B) \$600,000 but less than \$700,000
- (C) \$700,000 but less than \$800,000
- (D) \$800,000 but less than \$900,000
- (E) \$900,000 or more

Data for Question 7 (2 points)

Valuation date: 1/1/2026

Normal retirement benefit: \$500 per month per year of service

Early retirement eligibility: 62

Early retirement benefit: Accrued benefit with employer-subsidized reduction

There are over 5,000 active participants in the plan in the current year and in each of the last three years.

The plan actuary calculated the average actual retirement age to be 63 for the past three years.

The plan actuary believes the past three years of experience are representative of anticipated future experience.

Consider the following statements regarding the plan actuary's selection of actuarial assumptions for funding purposes:

- I. It is reasonable to assume an expected retirement age of 65 for all active participants
- II. The plan actuary should consider appropriate experience that may influence retirement assumptions in the future
- III. It is appropriate to assume retirement rates at ages 62-64 at which retirees can receive employer-subsidized benefits

Question 7

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 8 (4 points)

Valuation date: 12/31/2026

The plan requires mandatory employee contributions of 3% of compensation. Employee contributions are contributed and credited on the last day of the plan year.

No pre-retirement decrements are assumed other than mortality.

Selected plan information:

Benefit accrual each year	3.00% of compensation per year of credited service
Rate of interest credited on employee contributions (120% of the federal mid-term rate)	6.00%
Segment rates	{5.00%, 6.00%, 7.00%}

Selected data for sole participant Smith:

Date of birth	12/31/1982
Date of hire	1/1/2025
Gender	Male
Marital status	Single
2025 compensation	\$170,000
2026 compensation	\$175,000

Selected Male Commutation Functions:

Interest Rate = 5.0%		Interest Rate = 6.0%		Interest Rate = 7.0%		MALES
D_x	$N_x^{(12)}$	D_x	$N_x^{(12)}$	D_x	$N_x^{(12)}$	Age
114,640	1,966,678	75,545	1,143,046	49,978	674,368	44

Question 8

In what range is the target normal cost for Smith for 2026?

- (A) Less than \$7,250
- (B) \$7,250 but less than \$8,000
- (C) \$8,000 but less than \$8,750
- (D) \$8,750 but less than \$9,500
- (E) \$9,500 or more

Data for Question 9 (3 points)

Type of plan: Hybrid (cash balance)

Effective date of plan: 1/1/2026

Valuation Date: 12/31/2026

The plan allows an immediate lump sum payment equal to the participant's hypothetical account balance upon termination of employment.

Selected plan information:

Annual pay credit	5.0% of compensation provided on the last day of the plan year
Interest crediting rate	5.00% per year
Assumed form of payment	100% lump sum

Segment rates: {5.00%, 6.00%, 7.00%}

Data for sole participant Smith:

Gender	Male
Date of birth	12/31/1986
Date of hire	1/1/2026
Compensation	\$225,000

No contributions were made to the plan before 9/15/2027.

\$X is the smallest amount that satisfies the minimum funding standard as of 9/15/2027.

Question 9

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

- (A) Less than \$7,050
- (B) \$7,050 but less than \$7,300
- (C) \$7,300 but less than \$7,550
- (D) \$7,550 but less than \$7,800
- (E) \$7,800 or more

Data for Question 10 (3 points)

Valuation date: 1/1/2026

A plan amendment that increases benefits only for service earned on or after 7/1/2026 is adopted on 6/1/2026.

Normal retirement benefit before amendment: \$100 per month per year of service

Normal retirement benefit after amendment: \$110 per month per year of service

Segment rates: {5.00%, 6.00%, 7.00%}

Funding target attainment percentage as of 1/1/2025: 110.00%

Selected plan information as of 1/1/2026:

AFTAP	81.00%
Actuarial value of assets	\$810,000
Funding target	1,000,000
Target normal cost before amendment	500,000
Target normal cost after amendment	525,000

The plan actuary certified the 2026 AFTAP on 2/1/2026.

\$X is the smallest amount that satisfies the minimum funding standard as of 1/1/2026.

Question 10

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

- (A) Less than \$520,000
- (B) \$520,000 but less than \$527,500
- (C) \$527,500 but less than \$535,000
- (D) \$535,000 but less than \$542,500
- (E) \$542,500 or more

Data for Question 11 (1 point)

The plan currently has only the following types of participants:

- I. Active participants
- II. Terminated vested participants
- III. Retired participants currently receiving benefits
- IV. Beneficiaries (of deceased participants) currently receiving benefits

Consider the following statement:

All participants in the plan must be counted when determining whether the plan is eligible to use a static mortality table.

Question 11

Is the above statement true or false?

- (A) True
- (B) False

Data for Question 12 (4 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026

Actuarial cost method: Projected unit credit

Normal retirement benefit: 3.00% of final compensation times years of service

Early retirement benefit information:

Eligibility	Age 64 with 5 years of service
Reduction for early retirement	4.00% per year before normal retirement age

Selected assumptions:

Valuation interest rate	7.00%
Assumed rate of compensation increases	2.50% per year

Retirement decrements:

Age 64	50%
Age 65	100%

Selected data for participant Smith:

Gender	Male
Date of birth	1/1/1962
Date of hire	1/1/2016
2025 Compensation	\$82,000
Date of retirement	12/31/2025

Smith's actuarial accrued liability on 1/1/2026 is \$251,000.

$\$X$ is the absolute value of Smith's experience gain/loss during 2025 as of 1/1/2026.

Question 12

In what range is $\$X$?

- (A) Less than \$2,500
- (B) \$2,500 but less than \$6,500
- (C) \$6,500 but less than \$10,500
- (D) \$10,500 but less than \$14,500
- (E) \$14,500 or more

Data for Question 13 (2 points)

Consider the following statements regarding actuarial assumptions:

- I. For a plan with fewer than 100 participants, a single assumed retirement age may be reasonable as long as this is the actuary's best estimate.
- II. For a plan that is not in at-risk status, assumptions set by statute for determining minimum required contributions are limited to the discount rate and mortality rates.
- III. The plan actuary may use a non-prescribed actuarial assumption that is reasonable but more conservative than the actuary's best estimate of anticipated experience under the plan as long as all non-prescribed assumptions, in combination, represent the actuary's best estimate of anticipated experience under the plan.

Question 13

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 14 (3 points)

Valuation Date: 1/1/2026

Number of participants as of the valuation date: 505

There were more than 500 participants on each day of the 2025 plan year.

Selected valuation information as of 1/1/2026:

Target normal cost (without regard to at-risk assumptions)	\$375,000
At-risk target normal cost (without regard to load)	600,000

<u>Year</u>	<u>At-risk status</u>
2022	At-risk
2023	At-risk
2024	Not at-risk
2025	At-risk
2026	At-risk

\$X is the target normal cost as of 1/1/2026.

Question 14

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

- (A) Less than \$425,000
- (B) \$425,000 but less than \$472,000
- (C) \$472,000 but less than \$519,000
- (D) \$519,000 but less than \$566,000
- (E) \$566,000 or more

Data for Question 15 (3 points)

Valuation Date: 1/1/2025

Segment rates: {5.00%, 6.00%, 7.00%}

Benefit formula: 20% career average pay per year of service excluding pay and service before entry

Selected data for participant Smith:

Gender	Female
Date of birth	1/1/1985
Date of hire	1/1/2020
Date of plan entry	1/1/2022
2020 compensation	\$330,000
2021 compensation	0
2022 compensation	150,000
2023 compensation	175,000
2024 compensation	120,000

Smith had no hours or compensation in 2021.

\$X is Smith's funding target as of 1/1/2025.

Question 15

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

- (A) Less than \$134,000
- (B) \$134,000 but less than \$149,500
- (C) \$149,500 but less than \$165,000
- (D) \$165,000 but less than \$180,500
- (E) \$180,500 or more

Data for Question 16 (2 points)

Valuation Date: 1/1/2026

Consider the following statements:

- I. If an employer makes a contribution during the plan year after the valuation date, and the contribution is for the preceding plan year and has been deposited timely, the present value of such contribution shall be taken into account as an asset as of the valuation date.
- II. The present value of all late quarterly contributions for the prior plan year deposited during the current year should incorporate the 5% late quarterly penalty rate when adjusted to the valuation date in determining the actuarial (market) value of assets.
- III. A plan that determines the value of plan assets on the basis of the averaging of fair market values may not use an asset value that is lower than 90% or greater than 110% of the fair market value of assets as of the valuation date.

Question 16

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 17 (1 point)

Type of plan: Multiemployer

Valuation date: 1/1/2026

An amendment increasing the unfunded past service liability due to an increase in the benefit formula from \$100 to \$110 per month for all years of service is adopted on 7/1/2026.

Consider the following statement:

The increase in the unfunded past service liability under the plan arising from the plan amendment may be reflected as of 1/1/2026 and amortized over a period of 15 years.

Question 17

Is the above statement true or false?

(A) True

(B) False

Data for Question 18 (1 point)

Valuation date: 1/1/2026

Selected information for the plan:

	<u>2025</u>	<u>2026</u>
Plan participants at all times during the plan year	550	600
FTAP (without regard to at-risk assumptions)	77.00%	74.00%
FTAP (determined using at-risk assumptions)	71.00%	68.00%

Consider the following statement:

The plan is considered at-risk for the 2026 plan year.

Question 18

Is the above statement true or false?

- (A) True
- (B) False

Data for Question 19 (3 points)

Valuation date: 1/1/2026

2025 FTAP: 101.00%

Segment rates: {5.00%, 6.00%, 7.00%}

Selected information as of 1/1/2026:

Funding standard carryover balance	\$15,000
Prefunding balance	35,000
Actuarial (market) value of assets	3,500,000
Funding target	4,000,000
Target normal cost	250,000
Effective interest rate	5.30%

No shortfall amortization bases were established before 1/1/2026.

\$X is the smallest amount that satisfies the minimum funding standard as of 9/15/2027.

Question 19

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

- (A) Less than \$260,000
- (B) \$260,000 but less than \$275,000
- (C) \$275,000 but less than \$290,000
- (D) \$290,000 but less than \$305,000
- (E) \$305,000 or more

Data for Question 20 (3 points)

Valuation date: 1/1/2026

Normal retirement benefit: \$75 per month per year of service

Segment rates: {5.00%, 6.00%, 7.00%}

Selected information as of 1/1/2026, before the amendment:

Prefunding balance	\$50,000
Actuarial (market) value of assets	4,800,000
Funding target	5,000,000
Target normal cost	100,000

All shortfall amortization installments established before 1/1/2026:

<u>Year Established</u>	<u>Installment</u>
2025	\$30,200

A plan amendment is adopted during 2025 that increases the benefit for future years of service after 12/31/2025 to \$82.50 per month per year of service.

\$X is the smallest amount that satisfies the minimum funding standard as of 1/1/2026.

Question 20

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

- (A) Less than \$80,000
- (B) \$80,000 but less than \$95,000
- (C) \$95,000 but less than \$110,000
- (D) \$110,000 but less than \$125,000
- (E) \$125,000 or more

Data for Question 21 (4 points)

Valuation date: 1/1/2026

Asset valuation method: The average of the market value of assets on the valuation date and the adjusted fair market value of assets for the preceding valuation date

Segment rates for 2025: {5.00%, 6.00%, 7.00%}

Segment rates for 2026: {4.75%, 5.00%, 6.00%}

Selected information:

	<u>2025</u>	<u>2026</u>
Market value at 1/1 (excluding receivables)	\$5,000,000	\$4,450,000
Benefit payments, paid 7/1	250,000	
Expenses, paid 7/1	50,000	
Assumed rate of return	4.00%	4.00%
Effective interest rate	5.75%	5.25%

Contribution information for the 2025 plan year:

<u>Date</u>	<u>Amount</u>
4/1/2025	\$525,000
9/15/2026	525,000

\$X is the actuarial value of assets as of 1/1/2026.

Question 21

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

- (A) Less than \$5,442,000
- (B) \$5,442,000 but less than \$5,444,500
- (C) \$5,444,500 but less than \$5,447,000
- (D) \$5,447,000 but less than \$5,449,500
- (E) \$5,449,500 or more

Data for Question 22 (2 points)

Valuation date: 1/1/2026

Consider the following statements regarding the effect on funding of the plan's investment performance:

- I. The remaining prefunding balance as of the first day of the prior plan year must have been adjusted to the current plan year for the actual rate of return on plan assets for the prior plan year.
- II. When using an averaging method for the value of assets, if the actual investment return is less than expected earnings at each determination date in the smoothing period, the asset valuation method will always produce an actuarial value of assets less than the market value of assets.
- III. The actuary must only consider past asset performance in setting the assumed rate of return assumption for the asset valuation method.

Question 22

Which, if any, of the above statements 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 23 (1 point)

Consider the following statement:

For purposes of determining plan liabilities, a change from assuming a spouse's age to using the spouse's actual age is considered a change in funding method.

Question 23

Is the above statement true or false?

- (A) True
- (B) False

Data for Question 24 (2 points)

Valuation date: 1/1/2026

A plan is in at-risk status for five consecutive years, including the current plan year.

Consider the following statements regarding the special assumptions required to be used to determine the at-risk funding target for the current plan year:

- I. All active participants are assumed to elect the most valuable form of benefit at retirement, other than a lump sum.
- II. The early retirement eligibility for the plan is age 55. All active participants who have attained age 54 as of the valuation date are assumed to commence benefits at the end of the plan year.
- III. Pre-retirement termination assumptions are ignored.

Question 24

Which, if any, of the above statements 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 25 (3 points)

Valuation date: 1/1/2026

In the event of a plant shutdown, the plan provides for a supplemental accrued benefit to those employees who would be eligible to retire at the time of the shutdown.

Consider the following statements regarding the effect of IRC 436 funding-based limits on benefits:

- I. The 2026 AFTAP of 60.00% was certified by the plan's actuary before a plant shutdown occurred that would increase the funding target as of 1/1/2026. Any actions needed to permit the plant shutdown benefits to be paid are taken. The increase in liabilities due to the plant shutdown are not included in the funding target.
- II. The plan was effective 1/1/2019. In all circumstances the funding target must reflect the supplemental accrued benefit.
- III. There was a plant shutdown in 2024 and the plan was not subject to restrictions under IRC section 436. As of 1/1/2026, the plan's AFTAP declined to 58.00%. The 2026 funding target must include the supplemental accrued benefits triggered by the 2024 plant shutdown.

Question 25

Which, if any, of the above statements 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 26 (5 points)

Type of plan: Hybrid (cash balance)

Valuation date: 1/1/2026

The plan allows an immediate lump sum payment equal to the participant's hypothetical account balance upon termination of employment.

Selected plan information:

Annual pay credit	15.00% of compensation credited on the last day of the plan year
Interest crediting rate	3.50% per year

IRC section 430 segment rates: {5.00%, 6.00%, 7.00%}

Assumed form of payment: Lump sum

Selected data for participant Smith:

Date of birth	1/1/1967
Date of hire	1/1/2023
2023 compensation	\$100,000
2024 compensation	105,000
2025 compensation	110,000

Assumed retirement rates:

<u>Age</u>	<u>Current</u>	<u>Proposed</u>
60	0%	50%
61	0%	0%
62	0%	50%
63-64	0%	0%
65	100%	100%

\$X is the absolute value of the change in Smith's funding target as of 1/1/2026 due to the proposed change in retirement assumption.

Question 26

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

- (A) Less than \$3,600
- (B) \$3,600 but less than \$4,100
- (C) \$4,100 but less than \$4,600
- (D) \$4,600 but less than \$5,100
- (E) \$5,100 or more

Data for Question 27 (1 point)

Plan effective date: 1/1/2010

No changes were made to the funding methods or asset valuation methods in the preceding four plan years.

The plan has always had 50 participants.

The plan has had the same enrolled actuary in all years.

There were no plan mergers or spin-offs.

The plan has not terminated and is not under audit.

Consider the following statement:

A change in the valuation date for the 2026 plan year from the first day of the plan year to the last day of the plan year is granted automatic approval.

Question 27

Is the above statement true or false?

(A) True

(B) False

Data for Question 28 (3 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026

Actuarial cost method: Aggregate

Normal retirement benefit: \$65 per month per year of service

Valuation interest rate: 7.00%

Credit balance as of 12/31/2025: \$25,000

Actuarial value of assets as of 1/1/2026: \$400,000

Selected data for all 10 participants:

Gender	Female
Date of birth	1/1/1965
Date of hire	1/1/2015

\$X is the normal cost as of 1/1/2026.

Question 28

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

- (A) Less than \$133,000
- (B) \$133,000 but less than \$145,000
- (C) \$145,000 but less than \$157,000
- (D) \$157,000 but less than \$169,000
- (E) \$169,000 or more

Data for Question 29 (2 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026

Actuarial cost method: Unit credit

Normal and assumed form of payment: Single life annuity

The plan provides unreduced benefits starting at age 62.

Assumed rates of retirement:

<u>Age</u>	<u>Rate</u>
Prior to 65	0%
65	100%

Selected data for participant Smith who was an active participant at 1/1/2025:

Age as of 1/1/2026	63
Date of retirement	12/31/2025
Elected form of annuity payment	Single life annuity

Consider the following statement:

The plan realized an experience gain as of 1/1/2026 due to Smith's retirement.

Question 29

Is the above statement true or false?

(A) True

(B) False

Data for Question 30 (3 points)

Valuation date: 1/1/2026

A short plan year begins on 1/1/2026 and ends on 8/31/2026.

Normal retirement benefit: \$150 per month per year of service

Segment rates: {5.00%, 6.00%, 7.00%}

No plan expenses are paid from the trust.

Selected information as of 1/1/2026:

Prefunding balance	\$50,000
Market value of assets	2,350,000
Actuarial value of assets	2,150,000
Funding target	2,600,000
Target normal cost for 1/1/2026 through 12/31/2026	200,000

All shortfall amortization bases established before 2026:

<u>Date established</u>	<u>Installment</u>
1/1/2024	\$10,000
1/1/2025	(5,000)

\$X is the minimum required contribution as of 1/1/2026.

Question 30

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

- (A) Less than \$165,000
- (B) \$165,000 but less than \$180,000
- (C) \$180,000 but less than \$195,000
- (D) \$195,000 but less than \$210,000
- (E) \$210,000 or more

Data for Question 31 (5 points)

Valuation date: 1/1/2026

Prefunding balance as of 1/1/2026: \$0

Selected valuation results as of	<u>1/1/2025</u>	<u>1/1/2026</u>
Minimum required contribution	\$125,000	\$100,000
Effective interest rate	6.00%	6.50%
Funding target attainment percentage	92.00%	101.00%

Minimum required contributions for 2025 and all earlier plan years were timely satisfied.

Contribution for the 2026 plan year made on 3/1/2026: \$75,000

No other contributions were made for the 2026 plan year until 9/15/2027.

\$X is the smallest amount that satisfies the minimum funding standard on 9/15/2027.

Question 31

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

- (A) Less than \$28,500
- (B) \$28,500 but less than \$28,750
- (C) \$28,750 but less than \$29,000
- (D) \$29,000 but less than \$29,250
- (E) \$29,250 or more

Data for Question 32 (3 points)

Valuation date: 1/1/2026

2025 Minimum required contribution: \$200,000

2025 Effective interest rate: 6.00%

Prefunding balance as of 1/1/2025: \$100,000

Preliminary prefunding balance as of 1/1/2026, before any 2026 actions, and calculated as though no prefunding balance is applied to the 2025 minimum required contribution: \$115,000

No contributions or funding balance elections have been made toward the 2025 minimum required contribution during 2025.

On 4/15/2026, the plan sponsor elects to apply \$25,000 of prefunding balance toward the 2026 minimum required contribution as of 1/1/2026.

On 6/1/2026, the plan sponsor elects to reduce the 1/1/2026 prefunding balance by \$40,000.

On 7/1/2026, the plan sponsor elects to apply prefunding balance toward the 2025 minimum required contribution.

\$X is the largest amount of prefunding balance that could be applied to the 2025 minimum required contribution elected on 7/1/2026.

Question 32

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

- (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

Data for Question 33 (2 points)

Valuation date: 1/1/2026

Based on industry conditions for a plan sponsor as of the valuation date, the actuary assumes that there is a 75% probability of an unpredictable contingent event occurring in 2026, which would cause enhanced benefits to become payable to participants.

2025 AFTAP: 55.00%

2026 AFTAP if this unpredictable contingent event had a 0% probability: 53.00%

Consider the following statement:

For purposes of determining the 2026 minimum required contribution, the funding target must take the assumed value of this unpredictable contingent event benefit into account.

Question 33

Is the above statement true or false?

(A) True

(B) False

Data for Question 34 (4 points)

Valuation date: 1/1/2026

Normal retirement benefit: \$50 per month per year of service

Disability benefit eligibility: 10 years of service

Disability benefit: Current accrued benefit payable immediately

Selected valuation assumptions:

Segment rates: {5.00%, 6.00%, 7.00%}

Disabled mortality is the same as healthy mortality

Selected information for participant Smith as of 1/1/2026:

Gender	Male
Age	60
Service	25

Smith is an active participant who became disabled on 12/31/2025.

$\$X$ is the increase in Smith's funding target due to the change in his status from active to disabled.

Question 34

In what range is $\$X$?

- (A) Less than \$60,000
- (B) \$60,000 but less than \$70,000
- (C) \$70,000 but less than \$80,000
- (D) \$80,000 but less than \$90,000
- (E) \$90,000 or more

Data for Question 35 (1 point)

Type of plan: Multiemployer

A plan is in critical status for 2025 and 2026.

The collective bargaining agreement for an employer in this plan is effective from 10/1/2024 through 9/30/2027.

Consider the following statement:

In 2026, this employer is obligated to pay a surcharge equal to 5% of the contribution otherwise required under the collective bargaining agreement.

Question 35

Is the above statement true or false?

(A) True

(B) False

Data for Question 36 (3 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026

Actuarial cost method: Entry age normal

Normal retirement benefit: \$75 per month per year of service

Early retirement eligibility: Age 60

Early retirement benefit: Accrued benefit reduced by 6.00% for each year that the benefit commencement age precedes age 65

Valuation interest rate: 6.00%

Assumed retirement age: Age 62

Selected information for participant Smith as of 1/1/2026:

Gender	Female
Age	60
Service	35

\$X is Smith's normal cost on 1/1/2026.

Question 36

In what range is \$X?

- (A) Less than \$2,500
- (B) \$2,500 but less than \$7,500
- (C) \$7,500 but less than \$12,500
- (D) \$12,500 but less than \$17,500
- (E) \$17,500 or more

Data for Question 37 (4 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026

Actuarial cost method: Entry age normal

Normal retirement benefit: 1.50% of final compensation per year of service

Temporary supplemental benefit: \$1,000 per month as long as the participant is alive beginning at age 65 and ending at age 67 (24 months)

Valuation interest rate: 7.00%

Assumed annual rate of compensation increases: 5.00%

Selected information for participant Smith as of 1/1/2026:

Gender	Female
Age	45
Service	25

\$X is the portion of the normal cost for Smith's temporary supplemental benefit.

Question 37

In what range is \$X?

- (A) Less than \$40
- (B) \$40 but less than \$80
- (C) \$80 but less than \$120
- (D) \$120 but less than \$160
- (E) \$160 or more

Data for Question 38 (3 points)

Valuation date: 1/1/2026

Selected information as of 1/1/2026:

Prefunding balance	\$50,000
Actuarial (market) value of assets	2,000,000
Funding target	1,800,000
Present value of all benefits expected to accrue during the year	200,000
Expected expenses to be paid from the plan assets	10,000
Present value of mandatory employee contributions expected to be made during the year	8,000

There are no amortization charges for bases established before 1/1/2026.

\$X is the minimum required contribution as of 1/1/2026.

Question 38

In what range is \$X?

- (A) Less than \$46,000
- (B) \$46,000 but less than \$51,000
- (C) \$51,000 but less than \$56,000
- (D) \$56,000 but less than \$61,000
- (E) \$61,000 or more

Data for Question 39 (4 points)

Valuation date: 1/1/2026

FTAP as of 1/1/2025: 80%

FTAP as of 1/1/2026: 80%

Required quarterly installment due 4/15/2026: \$230,000

Asset information as of 3/31/2026:

Liquid assets	\$2,500,000
Illiquid assets	2,400,000

Plan-related disbursements for the 12-month period ending on 3/31/2026:

Monthly annuities	\$850,000
Single lump sums	45,000
Annuity purchases	250,000
Administrative expenses	70,000

Contribution necessary to increase FTAP to 100% as of 3/31/2026: \$650,000

There are more than 600 participants in all plan years.

\$X is the amount of liquid assets that must be deposited by 4/15/2026 to satisfy the quarterly contribution requirement.

Question 39

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

- (A) Less than \$250,000
- (B) \$250,000 but less than \$350,000
- (C) \$350,000 but less than \$450,000
- (D) \$450,000 but less than \$550,000
- (E) \$550,000 or more

Data for Question 40 (1 point)

Valuation date: 1/1/2026

The plan sponsor submits an application for a waiver of minimum required contributions for the 2026 plan year on 3/10/2027.

Consider the following statement:

The application was made timely.

Question 40

Is the above statement true or false?

(A) True

(B) False

Data for Question 41 (3 points)

Plan effective date: 1/1/2021

Valuation date: 1/1/2025

Normal retirement benefit: 12.00% of highest consecutive three-year average compensation per year of service, maximum of 10 years

Segment rates: {5.00%, 6.00%, 7.00%}

Selected data for active participant Smith as of 1/1/2025:

Gender	Female
Age	41
Years of service	5
Years of participation	4

Highest consecutive three-year average compensation as of 12/31/2024: \$20,000

Expected highest consecutive three-year average compensation as of 12/31/2025: \$21,000

\$X is Smith's 2025 plan year target normal cost.

Question 41

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

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

Data for Question 42 (2 points)

Valuation date: 1/1/2026

FTAP as of 1/1/2025: 100%

Segment rates: {5.00%, 6.00%, 7.00%}

Funding balances as of 1/1/2026: \$0

Effective interest rate: 5.75%

There were no unpaid minimum required contributions for any plan years before 2026.

The minimum required contribution for the 2026 plan year: \$300,000

The only contribution for the 2026 plan year was \$250,000 made on 7/1/2026.

\$X is the initial IRC section 4971 excise tax due on the unpaid minimum required contribution for the 2026 plan year.

Question 42

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

- (A) Less than \$3,250
- (B) \$3,250 but less than \$4,000
- (C) \$4,000 but less than \$4,750
- (D) \$4,750 but less than \$5,500
- (E) \$5,500 or more

Data for Question 43 (3 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026

Normal retirement benefit: 1.50% of the highest consecutive three-year average compensation per year of service

Actuarial cost method: Projected unit credit

Valuation interest rate: 7.00%

Assumed rate of compensation increases: 3.50%

Selected data for participant Smith as of 1/1/2026:

Gender:	Male
Age	41
Years of service	6
2023 compensation	\$100,000
2024 compensation	105,000
2025 compensation	110,000

\$X is Smith's accrued liability as of 1/1/2026.

Question 43

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

- (A) Less than \$44,000
- (B) \$44,000 but less than \$44,500
- (C) \$44,500 but less than \$45,000
- (D) \$45,000 but less than \$45,500
- (E) \$45,500 or more

Data for Question 44 (1 point)

Type of plan: Multiemployer

Plan effective date: 1/1/2000

Valuation date: 1/1/2026

Past asset valuation method information:

<u>Plan years</u>	<u>Asset valuation method</u>
2000-2010	Average value
2011-2020	Fair market value
2021+	Average value

Consider the following statement:

A change in asset valuation method to fair market value is granted automatic approval for the 2026 plan year.

Question 44

Is the above statement true or false?

(A) True

(B) False

Data for Question 45 (2 points)

Plan effective date: 1/1/2010

No changes were made to the funding methods or asset valuation methods in the preceding four plan years.

The plan has had the same enrolled actuary in all years.

There were no plan mergers or spin-offs.

The plan has not terminated, and is not under audit.

Consider the following statement:

A change in the asset valuation method for the 2026 plan year to the average of adjusted fair market value method with a 10% corridor would be granted automatic approval.

Question 45

Is the above statement true or false?

(A) True

(B) False

Data for Question 46 (4 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026

Actuarial cost method: Entry age normal

Valuation interest rate: 6.50%

A credit balance exists as of 12/31/2025 before the 12/31/2025 contribution.

Selected information as of 1/1/2025:

Actuarial (market) value of assets	\$700,000
Actuarial accrued liability	900,000
Normal cost (entry age normal)	90,000
Present value of accrued benefits	850,000
Normal cost (present value of benefit accruals)	95,000

Benefit payments paid during 2025: \$35,000

All benefit payments are assumed to be paid in the middle of the year.

The market value of assets before the 12/31/2025 contribution: \$750,000

The plan is not projected to have a funding deficiency for at least 10 years.

\$X is the sole 2025 plan year contribution made on 12/31/2025 in the smallest amount that allows the plan to be certified not to be in endangered, critical, or critical and declining status for the 2026 plan year.

Question 46

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

- (A) Less than \$25,000
- (B) \$25,000 but less than \$40,000
- (C) \$40,000 but less than \$55,000
- (D) \$55,000 but less than \$70,000
- (E) \$70,000 or more

Data for Question 47 (3 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026

Actuarial cost method: Entry age normal

Valuation interest rate: 6.50%

Credit balance as of 12/31/2025: \$250,000

Selected information as of 1/1/2026:

Normal cost	\$350,000
Amortization of charge bases established on or before 1/1/2026	150,000
Amortization of credit bases established on or before 1/1/2026	120,000

The plan entered critical status on 1/1/2025. The rehabilitation plan requires an hourly contribution increase of \$0.25 per hour effective 7/1/2026.

Selected information regarding contributions:

Hourly contribution rate before the rehabilitation plan	\$6.00
Hours from 1/1/2026 through 6/30/2026 with contributions paid 6/30/2026	30,000
Hours from 7/1/2026 through 12/31/2026 with contributions paid 12/31/2026	20,000

\$X is the credit balance as of 12/31/2026.

Question 47

In what range is \$X?

- (A) Less than \$165,000
- (B) \$165,000 but less than \$170,000
- (C) \$170,000 but less than \$175,000
- (D) \$175,000 but less than \$180,000
- (E) \$180,000 or more

Data for Question 48 (3 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026.

Actuarial cost method: Unit credit

Valuation interest rate: 6.50%

Monthly benefit formula: \$100 per month multiplied by the number of pension credits

On 1/1/2026, the plan is amended to increase the monthly benefit earned on and after 1/1/2026 to \$115 per month per pension credit.

The plan is not fully funded on the valuation date before the amendment.

A participant earns 1.00 pension credit per 1,800 hours in a plan year. A participant can earn up to 1.25 pension credits each year.

On 1/1/2026 the plan's actuary changes the assumption for the average number of pension credits earned from 1.00 per year to 1.10 per year.

Normal cost before plan amendment and assumption change as of 1/1/2026: \$325,000

\$X is the increase in the minimum required contribution payable on December 31, 2026 due to the plan amendment and assumption change.

Question 48

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

- (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 49 (1 point)

Type of plan: Multiemployer

The asset method is changed from fair market value of assets to a smoothed market value as described in Rev. Proc. 2000-40.

Consider the following statement:

The asset method change must include an adjustment so that the asset value determined under the method will be no greater than 110% and no less than 90% of the fair market value of assets.

Question 49

Is the above statement true or false?

(A) True

(B) False

Data for Question 50 (1 point)

Type of plan: Multiemployer

Valuation date: 1/1/2026

A contribution is made on 7/1/2026.

Consider the following statement with regard to the 12/31/2026 credit balance:

The contribution is credited with interest from the beginning of the year.

Question 50

Is the above statement true or false?

(A) True

(B) False

Data for Question 51 (4 points)

Type of Plan: Hybrid (cash balance)

Plan effective date: 1/1/2020

Valuation date: 1/1/2026

Segment rates: {5.00%, 6.00%, 7.00%}

Interest crediting rate: 4.00%

Assumed election percentages for form of payment: 60% lump sum and 40% single life annuity

Select data for participant Smith:

Gender	Male
Date of birth	1/1/1967
Date of hire	1/1/2016
Hypothetical account balance	\$500,000

$\ddot{a}_{65}^{(12)}$ using plan's fixed actuarial equivalence basis: 12.10

$\ddot{a}_{65}^{(12)}$ using 417(e) applicable interest rates and mortality: 12.80

$\$X$ is Smith's funding target.

Question 51

In what range is $\$X$?

- (A) Less than \$423,000
- (B) \$423,000 but less than \$429,000
- (C) \$429,000 but less than \$435,000
- (D) \$435,000 but less than \$441,000
- (E) \$441,000 or more

Data for Question 52 (3 points)

Plan effective date: 1/1/2021

Valuation date: 1/1/2026

Normal retirement benefit: 10% of highest consecutive three-year average compensation per year of service

Segment Rates: {5.00%, 6.00%, 7.00%}

There are no assumed pre-retirement decrements other than mortality.

Select male commutation functions:

Age	Segment 1		Segment 2		Segment 3	
	$\underline{Dx}$	$\underline{Nx^{(12)}}$	$\underline{Dx}$	$\underline{Nx^{(12)}}$	$\underline{Dx}$	$\underline{Nx^{(12)}}$
45	109,094	1,854,580	71,212	1,069,486	46,671	625,906

Selected data for participant Smith:

Gender	Male
Date of birth	1/1/1981
Date of hire	1/1/2022

Year	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
Compensation	\$110,000	\$125,000	\$137,000	\$157,000

An error is discovered that leads to changing Smith's 2025 compensation from \$157,000 to \$153,000.

$\$X$ is the change in the funding target for Smith due to the revised compensation.

Question 52

In what range is $\$X$?

- (A) Less than \$1,200
- (B) \$1,200 but less than \$2,000
- (C) \$2,000 but less than \$2,800
- (D) \$2,800 but less than \$3,600
- (E) \$3,600 or more

Data for Question 53 (3 points)

Type of plan: Multiemployer

Valuation date: 1/1/2026

Actuarial cost method: Projected unit credit

There are no assumed pre-retirement decrements other than mortality.

Normal retirement benefit: 1.50% of final three-year average compensation per year of service

Late retirement benefit: 1.50% of final three-year average compensation per year of service without actuarial increases before age 70-1/2

Selected assumptions as of 1/1/2026:

Valuation interest rate	6.00%
Compensation increases	2.50% per year
Retirement age	Age 65 or current age as of valuation date if later

Selected data for participant Smith:

Gender	Female
Date of birth	1/1/1958
Date of hire	1/1/1996
2023 Compensation	\$72,000
2024 Compensation	74,000
2025 Compensation	85,000

The plan provides for and issues timely suspension of benefit notices upon attainment of normal retirement age.

\$X is Smith's actuarial accrued liability as of 1/1/2026.

Question 53

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

- (A) Less than \$375,000
- (B) \$375,000 but less than \$385,000
- (C) \$385,000 but less than \$395,000
- (D) \$395,000 but less than \$405,000
- (E) \$405,000 or more

Data for Question 54 (1 point)

Type of plan: Multiemployer

A plan has a funding deficiency under IRC section 431.

The plan is in critical status pursuant to IRC section 432 in 2026.

Consider the following statement with respect to excise tax owed on the funding deficiency:

No tax shall be imposed under IRC section 4971 for failure to meet minimum funding standards for this plan for 2026.

Question 54

Is the above statement true or false?

(A) True

(B) False

Data for Question 55 (3 points)

Plan effective date: 1/1/2000

Plan type: Hybrid (cash balance) plan

Valuation date: 1/1/2026

Actuarial equivalence: 5.00% interest rate and applicable mortality table

Annual pay credit: 10.00% of compensation allocated as of the end of the year

Interest crediting rate: 6.00% per year

Segment rates: {5.00%, 6.00%, 7.00%}

Assumed form of payment: single life annuity

Select annuity factor under plan's actuarial equivalence:

$$\ddot{a}_{65}^{(12)} \quad 12.5343$$

Select data for participant Smith

Gender	Male
Date of birth	1/1/1981
Date of hire	1/1/2023
Compensation for each year	\$125,000

$\$X$ is the funding target for Smith as of 1/1/2026.

Question 55

In what range is $\$X$?

- (A) Less than \$26,250
- (B) \$26,250 but less than \$28,750
- (C) \$28,750 but less than \$31,250
- (D) \$31,250 but less than \$33,750
- (E) \$33,750 or more

Data for Question 56 (4 points)

Valuation date: 1/1/2026

Asset valuation method: Fair market value

Segment rates for the 2025 and 2026 plan years: {5.00%, 6.00%, 7.00%}

There was no funding shortfall, and no minimum required contribution, for the 2025 plan year.

Fair market value of assets as of 1/1/2025: \$10,000,000

Selected valuation results as of 1/1/2026:

Effective interest rate	6.00%
Receivable contribution for prior year	\$0
Prefunding balance	0
Funding target	10,000,000
Target normal cost	1,000,000

No contribution was made for the 2025 plan year. Prior to 2025, assets were held in a guaranteed investment contract yielding 6.00% annually. The guaranteed investment contract was redeemed on 12/31/2024 and the asset allocation was revised.

Actual return on plan assets during 2025: negative 15.00%.

There were no cash flows into or out of the plan during 2025.

\$X is the change in the minimum required contribution for the 2026 plan year as a result of the negative 15.00% asset return during 2025 instead of a positive 6.00% asset return.

Question 56

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

- (A) Less than \$565,000
- (B) \$565,000 but less than \$640,000
- (C) \$640,000 but less than \$715,000
- (D) \$715,000 but less than \$790,000
- (E) \$790,000 or more

Data for Question 57 (1 point)

Valuation date: 1/1/2026

Asset valuation method:

Before 1/1/2022	Fair market value
Starting 1/1/2022	The average of the market value of assets on the valuation date and the adjusted market value of assets for the dates that are 12 and 24 months before the valuation date

Consider the following statement:

Automatic approval is granted under Rev. Proc. 2017-56 to change the asset valuation method to fair market value effective 1/1/2026.

Question 57

Is the above statement true or false?

- (A) True
- (B) False

Data for Question 58 (1 point)

A plan has a prefunding balance, but no election is made to apply the prefunding balance to reduce the minimum required contribution for the year.

Consider the following statement:

If the value of plan assets (without reduction for prefunding balance) is greater than the funding target, no new shortfall amortization base is established for the plan year.

Question 58

Is the above statement true or false?

(A) True

(B) False

Data for Question 59 (5 points)

Valuation date: 1/1/2026

2025 FTAP: 85%

Minimum required contribution for the 2025 plan year: \$300,000

The minimum required contribution for the 2025 plan year was satisfied during 2025.

Selected valuation information as of 1/1/2026:

Prefunding balance	\$1,000,000
Actuarial (market) value of assets	3,000,000
Funding target	2,200,000
Minimum required contribution	350,000
Effective interest rate	6.00%

Actual rate of return on plan assets during 2026: 3.0%

On 4/15/2027, an election was made to use the prefunding balance to satisfy the 2026 quarterly installments and minimum required contribution.

\$X is the prefunding balance as of 1/1/2027.

Question 59

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

- (A) Less than \$600,000
- (B) \$600,000 but less than \$623,000
- (C) \$623,000 but less than \$646,000
- (D) \$646,000 but less than \$669,000
- (E) \$669,000 or more

Data for Question 60 (1 point)

The plan does not allow for any accelerated forms of benefit payment.

The 2026 AFTAP is 76.00% before any application or reduction in funding balances, but would be at least 80.00% if there were no funding balances.

Consider the following statement:

There is a deemed reduction in the funding balances for 2026.

Question 60

Is the above statement true or false?

(A) True

(B) False

Data for Question 61 (2 points)

Type of plan: Multiemployer

Consider the following statements regarding amortization periods:

- I. The net increase (if any) in unfunded past service liability under the plan arising from plan amendments adopted in the plan year is amortized over 30 years.
- II. The net experience loss (if any) under the plan is amortized over 15 years.
- III. Waived funding deficiencies are amortized over 15 years.

Question 61

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)

Data for Question 62 (2 points)

Type of plan: Multiemployer

Consider the following with regard to deductible limits:

- I. The amount necessary to satisfy the minimum funding standard
- II. The unfunded cost of past and current service credits with respect to all employees
- III. The current liability as defined under IRC 431

Question 62

Which, if any, of the above is (are) considered for the calculation of deductible limits?

- (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)

****END OF EXAMINATION****