Question 1

The notice requirement for a plan that first becomes subject to the restrictions of IRC section 436 states that written notification must be provided to plan participants and beneficiaries within 30 days, not 45 days. See ERISA section 101(j) and Revenue Notice 2012-46.

The statement is false.

Answer is B.

Question 2

Interpretive Bulletin 2509.95-1(c) provides guidance for plan administrators when selecting an annuity provider for the purpose of making benefit distributions.

I. The interpretive bulletin does state that the plan administrator must obtain the safest annuity available, unless it would be in the best interests of the participants and beneficiaries to do otherwise. The statement is true.

II. The size of the insurer relative to the annuity contract is only one of several conditions that must be considered under the rules of the interpretive bulletin when selecting an annuity provider. It is not the sole consideration. The statement is false.

III. The interpretive bulletin does state that the plan administrator may conclude that, after an appropriate search, more than one annuity provider can offer the safest annuity. The statement is true.

Answer is C.

Question 3

In this plan, the increase in the accrued benefit each year in the defined benefit plan is reduced by the profit sharing contribution for that year. Treasury Regulation 1.401(a)(4)-8(d)(1)(i) requires that the total accrued benefit in the defined benefit plan be offset by the actuarial equivalent of the total profit sharing plan account balance, not on a year-by-year basis as in this question. The statement is false.

Answer is B.

Question 4

When the measurement period is the current plan year, the accrual for that plan year is normalized to a life annuity at the testing age (62 in this question), and divided by testing compensation (which can be assumed to be 2018 compensation as no other compensation is provided). In a cash balance plan, the accrual for a plan year is equal to the pay credit for that year. The pay credit is accumulated to testing age using the cash balance plan's interest crediting rate (5% per year in this question), and then converted to the life annuity normal form using the plan assumptions (5.5% interest in this question). The pay credit given in this question is as of 12/31/2018 (although that is not explicitly stated, the participant data seems to be as of 12/31/2018, since that is date for which the age is provided for each participant). Testing assumptions are not needed to answer the question because the plan normal form of benefit is a life annuity, and it is determined at age 62, which is testing age. As a result, there is no need to normalize the benefit.

Smith
Accumulated pay credit at age 62 = $\$150{,}000 \times 1.05^{8} = \$221{,}618$

Actuarially equivalent life annuity = $\$221{,}618 \div 12.12 = \$18{,}285$

Normal accrual rate = $\$18{,}285 \div \$200{,}000 = 9.14\%$

Jones
Accumulated pay credit at age 62 = $\$X \times 1.05^{22} = \$2.92526X$

Actuarially equivalent life annuity = $\$2.92526X \div 12.12 = \$0.24136X$

Normal accrual rate = $\$0.24136X \div \$30{,}000 = 9.14\%$

$\$X = \$11{,}361$

Answer is D.

Question 5

IRC section 401(a)(26)(A) states that a plan satisfies the minimum participation requirement if it benefits the smaller of 50 participants, or 40% of the nonexcludable employees.

Treasury regulation 1.410(b)-6(b)(1) provides that an employee is excludable if they are excluded from a plan due to the minimum age and service requirements of the plan. An employee is non-excludable if they are not excludable. In addition, plan participants who have terminated, work no more than 500 hours in the plan year, and do not accrue a benefit for the year are considered to be excludable (Treasury regulation 1.410(b)-6(f)). It is given that all employees have satisfied the minimum age and service requirements, so generally all employees would be non-excludable (including the managers who are excluded from the plan). However, there are 3 terminated non-managers who worked only 250 hours (and do not accrue a benefit since there is a 1,000 hour requirement) who are plan participants. They are considered to be excludable. (The terminated managers are not plan participants, so they do not fall under this special case and are still considered to be non-excludable.)

Total non-excludable = $(2 + 8 + 35) + (3 + 1 + X) + (4 + 6) + (5 + 6 + 4) = 74 + X$

Only plan participants can benefit (thus only non-managers, since managers are excluded from the plan), and they must work at least 1,000 hours to accrue a benefit. So only the active and terminated non-managers who worked 1,500 hours are benefiting.

Total benefiting = $35 + 6 = 41$

Since fewer than 50 participants are benefiting, the total benefiting must be at least 40% of the total who are non-excludable.

$40\% \times (74 + X) = 41 \quad \rightarrow \quad X = 28$

Answer is B.

Question 6

When plans are aggregated, employees are excludable if they fail to satisfy the minimum age and service requirements of any of the plans (see Treasury regulation 1.410(b)-6(b)(2)). Plan C has no minimum age and service requirements, so all employees are non-excludable for purposes of the aggregated plan.

Total non-excludable = 85 + 69 + 47 + 15 + 13 = 229

Answer is E.

Question 7

Treasury regulation 1.410(b)-6(d)(1) states that collectively bargained employees are treated as excludable employees regardless of whether they are covered under a plan or excluded from the plan. As a result, the collectively bargained employees are ignored in this question.

IRC section 410(b)(1)(B) states that the ratio percentage must be equal to at least 70%. Treasury regulation 1.410(b)-9 defines the ratio percentage as the ratio of the percentage of non-highly compensated employees benefiting under the plan to the percentage of highly compensated employees benefiting under the plan. Only nonexcludable employees are considered for this purpose. The employees who have not met plan eligibility are excluded from the ratio percentage.

Considering only the non-collectively bargain employees, the ratio percentage is:

$$\frac{\frac{120}{180}}{\frac{X}{X+3}} = .7 \quad \rightarrow \quad 2/3 = .7X/(X+3) \quad \rightarrow \quad 2.1X = 2X + 6 \rightarrow \quad X = 60$$

Answer is A.

Question 8

I. Treasury regulation 1.410(b)-6(f) provides rules for certain plan participants who terminated employment and worked no more than 500 hours to be considered excludable employees, and thus excluded from both coverage and participation tests. There is no such rule for employees who work no more than 750 hours. The statement is false.

II. Treasury regulation 1.401(a)(4)-3(b)(6)(xi) discusses rules with regard to safe harbors for plans with multiple formulas. The sum of two formulas that are each individually uniform and safe harbors is generally considered to be a safe harbor. In that discussion, the regulation states that the combined formula does not fail to be a safe harbor formula merely because one of the formulas is not available to any HCEs (it would be a problem if one of the formulas was not available to any NHCEs). The statement is false.

III. The maximum offset allowance as described in Treasury regulation 1.401(l)-3(b)(3) cannot be greater than 0.75%, so the 0.80% used does not satisfy the rules covering the maximum offset allowance. The statement is false.

Answer is A.

Question 9

IRC section 417(c)(1)(A) states that the qualified pre-retirement survivor annuity (QPSA) percentage cannot be less than the qualified joint and survivor annuity (QJSA) percentage. Therefore, the QPSA percentage cannot be 50% since that is less than the QJSA percentage of 75%. The statement is true.

Answer is A.

Question 10

ERISA regulation 2530.203-3 provides rules with regard to suspension of benefits. If a timely suspension of benefits notice is provided to a participant, then all benefit payments that would have occurred during the participant's period of employment are forfeited. As a result, upon actual retirement, the participant does not receive any actuarial increase of their normal retirement benefit, but simply the benefit calculated under the plan's benefit formula as of the actual retirement date. The statement is false.

Answer is B.

Question 11

Smith has reached normal retirement age (62) on 1/1/2017. IRC section 410(a) states that all benefits must be non-forfeitable upon attainment of normal retirement age. Smith is 100% vested on 1/1/2017. The statement is true.

Answer is A.

Question 12

The top heavy minimum benefit under IRC section 416(c)(1) is equal to 2% of the high consecutive 5-year average salary per year of top heavy plan participation (participation during years in which the plan was top heavy), up to a maximum of 10 years. The plan has been top heavy for all years, for a total of 9 years as of 12/31/2018.

Top heavy minimum monthly benefit = 2.00% × ($180,000/12) × 9 years = $2,700

The 133⅓% rule of IRC section 411(b)(1)(B) requires that no benefit accrual be more than 133⅓% of any prior year accrual. Since the initial monthly accrual for Smith is $450, the highest possible monthly accrued benefit would have each subsequent year accrual be exactly 133⅓% of $450, which is $600.

Maximum plan monthly accrued benefit = $450 + ($600 × 8 years) = $5,250

X = greater of top heavy minimum or maximum plan benefit = $5,250

The smallest plan accrued benefit would occur if the each accrual subsequent to the first year was $0 (making the benefit formula $450 after 1 year of service, with no further accruals—satisfying the 133⅓% rule).

Minimum plan monthly accrued benefit = $450

Y = greater of top heavy minimum or minimum plan benefit = $2,700

X – Y = $5,250 – $2,700 = $2,550

Answer is B.

Question 13

Smith has retired on 1/1/2018 at age 66, on the 6th anniversary of participation (according to the general conditions of the exam, there are no eligibility requirements, so entry was immediate upon employment). Smith is fully vested, since Smith reached normal retirement age on 1/1/2017. Suspension of benefit notices are provided, so upon actual retirement, there is no actuarial increase given to Smith's normal retirement benefit. Rather, Smith's accrued benefit is simply the benefit based upon the plan benefit formula.

1,000 hours of service are required each year to earn service for benefit purposes. Smith only has 4 years of service.

1/1/2018 vested accrued benefit = $75 × 4 years of service = $300

Answer is D.

Question 14

IRC section 411(a)(4) allows for years of service prior to attaining age 18 and service before the plan effective date to be ignored for purposes of vesting. Smith was hired on 1/1/2010 at age 17, and the plan was effective on 1/1/2010. Service for the year 2010 can be ignored because Smith was under age 18. In addition, since 1,000 hours of service is required in a year for that year to be considered for vesting, the years 2012, 2014, and 2015 can also be ignored.

Smith has 4 years of service (2011, 2013, 2016, and 2017) for vesting.

Answer is C.

Question 15

The best source for a list of situations when a plan is no longer required to make PBGC premium filings is on page 5 of the 2018 PBGC premium filing instructions, in the section headed "When Filing Obligation Ceases."

I. There is no longer a premium filing requirement in the year following the plan year in which a trustee is appointed under ERISA section 4042. The statement is true.

II. There is no longer a premium filing requirement in the year following the plan year in which the plan ceases to be covered under ERISA section 4021. The statement is true.

III. The funded percentage under ERISA section 4010 has no impact on whether a plan is required to make a premium filing. The statement is false.

Answer is B.

Question 16

The total PBGC premium under ERISA section 4006 consists of a flat-rate premium and a variable-rate premium. For 2018, the flat-rate premium is equal to $74 per participant. The participant count is based on the number of plan participants as of the last day of the prior plan year (12/31/2017). Participants include vested and non-vested active participants, vested terminated participants, and retired participants.

The plan has 26 active participants, 20 terminated vested participants, and 4 retirees, for a total of 50 participants to be counted for the flat-rate premium.

Flat-rate premium = 50 × $74 = $3,700

The PBGC variable-rate premium for 2018 is equal to 3.8% of the unfunded vested benefits (with the unfunded vested benefits rounded up to the next higher multiple of $1,000). The standard premium funding target is used in this question, since the alternative premium funding target is not elected. Market value of assets is used for premium purposes.

2018 variable premium unfunded liability = $1,420,000 – $682,400 = $737,600

The $737,600 is rounded up to $738,000.

2018 variable-rate premium = $738,000 × 0.038 = $28,044

In 2018, there is a variable premium cap of $523 per plan participant.

Variable premium cap = $523 × 50 participants = $26,150

The variable-rate premium is limited by this cap.

Additionally, for small employers (no more than 25 employees), there is also a cap on the variable premium equal to the number of participants squared, multiplied by $5. The employer in this question has at least 26 employees (the 26 active participants). So the small employer cap does not apply.

The 2018 variable rate premium is $26,150.

Total 2018 PBGC premium = $3,700 + $26,150 = $29,850

Answer is B.

Question 17

The total PBGC premium under ERISA section 4006 consists of a flat-rate premium and a variable-rate premium. For 2018, the flat-rate premium is equal to $74 per participant. The participant count is based on the number of plan participants as of the last day of the prior plan year (12/31/2017). Participants include vested and non-vested active participants, retired participants, and beneficiaries and alternate payees of deceased participants.

The plan has 15 vested active participants, 4 non-vested active participants, 3 retirees, and 2 alternate payees of deceased participants, for a total of 24 participants to be counted for the flat-rate premium.

Flat-rate premium = 24 × $74 = $1,776

The PBGC variable-rate premium for 2018 is equal to 3.8% of the unfunded vested benefits (with the unfunded vested benefits rounded up to the next higher multiple of $1,000). The standard premium funding target is used in this question, since the alternative premium funding target is not elected. Market value of assets is used for premium purposes.

2018 variable premium unfunded liability = $540,000 – $450,000 = $90,000

2018 variable-rate premium = $90,000 × 0.038 = $3,420

In 2018, there is a variable premium cap of $523 per plan participant.

Variable premium cap = $523 × 24 participants = $12,552

The variable-rate premium is not limited by this cap.

Additionally, for small employers (no more than 25 employees), there is also a cap on the variable premium equal to the number of participants squared, multiplied by $5. The employer in this question has 19 employees (the 19 active participants) as of 1/1/2018. So the small employer cap applies.

Small employer variable premium cap = $5 × 24^2 = $2,880

The small employer variable premium cap applies because the variable premium before considering the cap is larger. Note that while the number of employees is used to determine whether the small employer cap applies, the number of participants is used to determine the amount of the cap.

The 2018 variable rate premium is $2,880.

Total 2018 PBGC premium = $1,776 + $2,880 = $4,656

Answer is D.

Question 18

ERISA regulation 4041.21(b)(2) provides that as part of a standard termination, a majority owner may elect to forego some or all of their benefit in order for the plan to have sufficient assets for the plan to terminate. A majority owner, as defined in ERISA regulation 4041.2, is an individual who owns more than 50% of the plan sponsor. None of the individuals in this question is a majority owner, so none can elect to forego any of their benefit in order for the plan to terminate as a standard termination. The statement is false.

Answer is B.

Question 19

ERISA section 4044(a)(2) defines PBGC priority category 2 as including the accrued benefit derived from mandatory employee contributions. Category 1 consists of voluntary employee contributions. The statement is false.

Answer is B.

Question 20

ERISA regulation 4041.44(c)(2) states that if the PBGC issues a finding of noncompliance with regard of a notice of intent to terminate, the plan continues as an ongoing plan. There is no extension of the proposed plan termination date. The statement is false.

Answer is B.

Question 21

The vested accrued benefit attributable to the benefit structure in place exactly 5 years before the plan termination date is fully guaranteed (up to the PBGC maximum guaranteeable benefit). That benefit structure in effect 5 years before the plan termination date of 12/31/2017 is 1% of final compensation per year of service, reduced by 5% per year of actual retirement prior to age 65. It is given that the PBGC expected retirement age (XRA) is age 56. That age is used as the retirement age for purposes of the guaranteed benefit for Smith. The vesting schedule is not provided, but Smith has at least 7 years of service (actually 26 years of service as of the plan termination date), and must therefore be fully vested under any vesting schedule that would satisfy the minimum vesting rules of IRC section 411(a).

The monthly accrued benefit, payable at 56 (with an early retirement reduction factor reflecting the 5% per year reduction prior to age 65), for Smith using the original benefit formula is:

1% × $100,000/12 × 26 years of service × [1 – (.05 × 9 years)] = $1,191.67

This is fully guaranteed, provided it does not exceed the PBGC maximum guaranteeable benefit. The maximum guaranteeable monthly benefit under ERISA section 4022(b)(3) cannot exceed the smaller of:

(1) The high consecutive 5-year average salary, or
(2) The PBGC dollar maximum ($5,369.32 per month for 2017)

Compensation history is not provided, so it must be assumed that the PBGC dollar maximum is smaller than the 5-year average salary. The PBGC maximum is reduced for retirement age prior to age 65. The reduction factor (provided in a table given with the exam) is 0.49.

PBGC maximum guaranteeable benefit = $5,369.32 × 0.49 = $2,630.97

This is more than $1,191.67, so that benefit is fully guaranteed.

The vested accrued benefit increase under the 7/1/2014 plan amendment (removing the early retirement reduction) is phased in under the rules of ERISA section 4022 at the rate of 20% (or $20, if greater) for each full 12-month period that the amendment was in effect through the plan termination date. The amendment was effective for 3½ years, so it is phased in for 3 complete 12-month periods.

The monthly accrued benefit, payable at 56 (with no early retirement reduction factor) for Smith using the original benefit formula is:

1% × $100,000/12 × 26 years of service = $2,166.76

Note that this is less than the PBGC maximum guaranteeable benefit of $2,630.97.

Increase in vested accrued benefit = $2,166.67 – $1,191.67 = $975.00

Phase-in = $975.00 × 20% × 3 years = $585.00

This phased-in amount is guaranteed.

The vested accrued benefit increase under the 10/1/2016 plan amendment (increasing the benefit formula from 1% to 2%) is phased in under the rules of ERISA section 4022 at the rate of 20% (or $20, if greater) for each full 12-month period that the amendment was in effect through the plan termination date. The amendment was effective for 1 year and 3 months, so it is phased in for 1 complete 12-month period.

2% × $100,000/12 × 26 years of service = $4,333.33

This must be limited to the PBGC maximum guaranteeable benefit of $2,630.97.

Increase in vested accrued benefit = $2,630.97 – $2,166.67 = $464.30

Phase-in = $464.30 × 20% × 1 year = $92.86

This phased-in amount is guaranteed.

Total monthly guaranteed benefit = $1,191.67 + $585.00 + $92.86 = $1,869.53

Answer is B.

Question 22

The maximum guaranteeable monthly benefit under ERISA section 4022(b)(3) cannot exceed the smaller of:

(1) The high consecutive 5-year average salary, or
(2) The PBGC dollar maximum ($5,420.45 per month for 2018)

No salary information has been provided in this question, so the maximum guaranteeable benefit is based upon $5,420.45. The maximum is adjusted when retirement age is other than age 65, and when the form of benefit is anything other than a life annuity. ERISA section 4022 provides factors for this purpose, and these are provided in tables given with the exam.

The factor for adjusting the PBGC maximum to retirement age 63 is 0.86.

X = $5,420.45 × 0.86 = $4,661.59

The factor for adjusting the PBGC maximum to a 15-year certain and life annuity is 0.875.

Y = $5,420.45 × 0.875 = $4,742.89

The factor for adjusting the PBGC maximum to a joint and 100% survivor annuity (with participant and beneficiary the same age) is 0.80.

Z = $5,420.45 × 0.80 = $4,336.36

The largest of these is $4,742.89.

Answer is D.

Question 23

ERISA section 4219(c)(2) requires that withdrawal liability payments must begin within 60 days of withdrawal regardless of an appeal of the liability assessed. The statement is false.

Answer is B.

Question 24

Complete withdrawal liability is determined as of the last day of the plan year prior to the year of withdrawal. In this question, that would be 12/31/2016. Under the Rolling 5 Method, the total unfunded vested benefits (UVBs) as of the end of the year prior to withdrawal is multiplied by a fraction, the numerator consisting of the total contributions made by the withdrawing employer for the 5-year period ending on the last day of that prior year, and the denominator consisting of the total contributions made by all employers for the same 5-year period (there is an adjustment to this if there are any previously withdrawn employers). The result is the withdrawing employer's share of UVBs. If a de minimis credit applies, that result is reduced by the credit in order to obtain the complete withdrawal liability. Employer A completely withdrew in 2013, but paid its entire liability in 2014, so that liability is no longer of any importance (it is part of the assets, and has been used to reduce the 12/31/2016 unfunded vested benefits). However, the total contributions for all employers must be reduced by those of Employer A, for purposes of calculating the complete withdrawal liability for Employer B.

Employer B contributions for 2012 – 2016:

$140,000 + $160,000 + $180,000 + $200,000 + $215,000 = $895,000

All employer contributions (reduced by Employer A) for 2012 – 2016:

($12,000,000 – $1,700,000) + ($13,000,000 – $1,800,000)
+ $14,000,000 + $15,000,000 + $16,000,000 = $66,500,000

The amount of unfunded vested benefits allocated to Employer B is:

$$\text{Unfunded vested benefits}_{12/31/2016} \times \frac{\text{Employer B Contributions for 2012 - 2016}}{\text{All Employer Contributions for 2012 - 2016}}$$

$$= \$8{,}700{,}000 \times \frac{\$895{,}000}{\$66{,}500{,}000} = \$117{,}090$$

The mandatory de minimis rule under ERISA section 4209(a) states that the allocation to a withdrawing employer of the plan's unfunded vested benefit obligations are generally reduced by the smaller of:

(1) ¾% of the total unfunded vested benefits for the entire plan, or
(2) $50,000

¾% of the total unfunded vested benefits = ¾% × $8,700,000 = $65,250

The smaller of $65,250 and $50,000 is $50,000.

The de minimis credit is reduced by one dollar for every dollar that the withdrawing employer's share of unfunded vested benefit obligations exceeds $100,000. The reduction in the de minimis credit is:

$117,090 - $100,000 = $17,090

The de minimis credit is:

$50,000 - $17,090 = $32,910

Complete withdrawal liability = $117,090 – $32,910 = $84,180

Answer is C.

Question 25

When a qualified replacement plan is established, with at least 25% of the excess assets in a terminated plan transferred to the qualified replacement plan, the excise tax on the reversion of assets under IRC section 4980(c) is equal to 20% of the amount reverted to the employer. This is reported on Form 5330.

20% × $100,000 = $20,000

The statement is true.

Answer is A.

Note that although the question does not specify how much money has been transferred to the qualified replacement plan, the question cannot be answered without assuming that an appropriate amount has been transferred. The definition of qualified replacement plan under IRC section 4980(d)(2) includes the requirement of at least a 25% transfer (as well as that at least 95% of the active participants from the terminating defined benefit plan be participants in the replacement plan). So by simply stating that the employer has established a qualified replacement plan, the question has indirectly stated that the proper transfer and participation requirements have been met.

Question 26

The excise tax with regard to a prohibited transaction is equal to 15% of the amount involved (IRC section 4975(a)). When the prohibited transaction is a prohibited loan, the amount involved is equal to the interest paid or accrued with respect to the loan (the interest rate must be at least as large as the fair market interest rate). The determination of the excise tax in this situation is described in Revenue Ruling 2002-43.

The prohibited loan was established on 7/1/2016, and still exists on 12/31/2018. Interest only payments have been made each 6/30, so the entire principal balance of $100,000 still exists. The prohibited amount includes both interest paid ($7,000 on each of 6/30/2017 and 6/30/2018) and accrued (another $3,500 for the last half of 2018).

Total interest paid or accrued through 2018:

$7,000 + $7,000 + $3,500 = $17,500

The 15% excise tax is:

15% × $17,500 = $2,625

Answer is D.

Alternative (and possibly the more correct) solution:

Revenue Ruling 2002-43 states that the excise tax is due for each tax year of the disqualified person (the plan sponsor in this question), with the principal of the loan being re-determined as of the first day of each tax year (the calendar year, per the exam general conditions).

The prohibited loan was established on 7/1/2016, and still exists on 12/31/2018. Interest only payments have been made each 6/30, so the entire principal balance of $100,000 still exists. However, since the principal balance of the loan is re-determined each 1/1 for purposes of the excise tax, the outstanding balance of the loan as of 1/1/2017 and 1/1/2018 must be determined.

1/1/2017 outstanding balance = $100,000 × $1.07^{6/12}$ = $103,440.80

As there is an interest payment of $7,000 on 6/30/2017, the outstanding balance would revert back to $100,000 on 6/30/2017. Therefore, with another 6 months of accrued interest as of 1/1/2018, the outstanding balance on that date will again be $103,440.80.

Note that interest has been compounded in the determination of the outstanding balance. This is not specifically a requirement in the regulation, but is the method used in the example provided.

The prohibited amount (on which the excise tax applies) would be equal to the outstanding balance of the loan on the date it was established (7/1/2016) and then each subsequent January 1st, multiplied by the 7% interest rate for that year (prorated for 6 months in 2016).

Prohibited amount for 2016: $100,000 × 0.07 × (6/12) = $3,500
Prohibited amount for 2017: $103,440.80 × 0.07 = $7,240.86
Prohibited amount for 2018: $103,440.80 × 0.07 = $7,240.86

The 15% excise tax is:

15% × ($3,500 + $7,240.86 + $7,240.86) = $2,697.26

Note that the example in the regulation is not really quite like this one – in the regulation there are no interest payments made along the way, reducing the principal back to the original amount. As a result it is not clear whether the interest payment made on 6/30 each year can be used to "erase" the increase in the principal as of the first day of the year, reverting it back to $100,000. This is what I did in my original solution above.

In any case, either solution is in the same answer range, choice D.

Question 27

IRC section 4975(b) provides for the assessment of a 100% tax in addition to the initial 15% excise tax if a prohibited transaction is not corrected within the taxable period. Note that the 100% tax is not assessed if the prohibited transaction is corrected within 90 days of the date that the disqualified person is notified of the assessment by the IRS (see IRC section 4961).

The statement is true.

Answer is A.

Question 28

A lineal descendent (in this case daughter) of an owner (direct or indirect) of 50% or more of a corporation is a disqualified person. See IRC sections 4975(e)(2)(E) and (F), and 4975(e)(6).

The statement is true.

Answer is A.

Question 29

I. The plan sponsor is considered a disqualified person (IRC section 4975(e)(2)(C)). The lending of money between a plan and a disqualified person is a prohibited transaction (IRC section 4975(c)(1)(B)). This statement is true.

II. IRC section 4975(e)(2)(E) requires at least 50% ownership in order for an individual to be considered a disqualified person. This statement is false.

III. IRC section 4975(a) states that the prohibited transaction tax is paid by any disqualified person who participates in the transaction, other than a fiduciary acting only as such. This statement is true.

Answer is C.

Question 30

ERISA regulation 901.20(d)(2) states that when a conflict of interest exists, an enrolled actuary can provide actuarial services to either client provided the actuary believes that they can represent either client competently and diligently, the representation is not prohibited by law, and the clients waive the conflict of interest.

The statement is true.

Answer is A.

Question 31

ERISA regulation 901.20(d)(1) states that an enrolled actuary shall not provide actuarial services to a client if a conflict of interest exists. ERISA regulation 901.20(d)(1)(i) states that a conflict of interest exists if the representation of one client would directly be adverse to another client.

The statement is true.

Answer is A.

Question 32

IRC section 436(f)(3)(A) provides that for non-collectively bargained plans, only in the case of a plan subject to the restrictions on accelerated distributions, if a funding balance could be reduced such that either an AFTAP or a presumed AFTAP could be increased to either 60% or 80%, then it must be reduced. In this question, the plan does not provide for any accelerated distributions, so it is not subject to this requirement. The statement is false.

Answer is B.

Question 33

IRC section 436(d)(5)(A) provides that an accelerated payment is any payment in excess of a single life annuity payment. In this question, the payments during the first 12 months would be greater than a single life annuity payment since all subsequent payments are equal to half that amount. This alternative form of benefit would be considered a prohibited payment under IRC section 436.

The statement is true.

Answer is A.

Question 34

IRC section 436(f)(3)(A) provides that for non-collectively bargained plans, only in the case of a plan subject to the restrictions on accelerated distributions, if a funding balance could be reduced such that either an AFTAP or a presumed AFTAP could be increased to either 60% or 80%, then it must be reduced. In this question, the plan provides for accelerated distributions, so it is subject to this requirement.

The AFTAP, as defined in IRC section 436(j)(1) and determined on the plan valuation date, is equal to the ratio of the actuarial value of assets (reduced by the funding balances) to the funding target, with both the numerator and denominator increased by the total purchases of annuities for the NHCEs during the last 2 years. There are no purchases of annuities in this question.

$$\text{2017 AFTAP} = \frac{780{,}000 - 100{,}000}{1{,}000{,}000} = 68\%$$

Reducing the prefunding balance by any amount will not increase the 2017 AFTAP to 80%, since a complete reduction to 0 still leaves an AFTAP of 78% (780,000/1,000,000). So for purposes of the 2017 AFTAP, none of the prefunding balance is reduced.

The 2018 AFTAP has not been certified in this question. Treasury regulation 1.436-1(g)(2)(ii) provides rules for reducing the funding balances (if necessary) when a presumed AFTAP exists, as it does in 2018 until the AFTAP is certified. In addition, examples 1 and 2 of Treasury regulation 1.436-1(g)(6) provide illustrations of how this works.

When the current year AFTAP has not been certified as of the first day of the year, the presumed AFTAP is equal to the prior year AFTAP. So as of 1/1/2018, the presumed AFTAP is 68%. The actuarial value of assets as of 1/1/2018 is used to determine a presumed funding target.

$$\text{1/1/2018 presumed AFTAP} = \frac{1{,}300{,}000 - 350{,}000}{\text{presumed funding target}} = 68\%$$

Presumed funding target = 1,397,059

In order to increase the 1/1/2018 presumed AFTAP to 80%, the prefunding balance must be reduced to 182,353.

$$\text{Modified 1/1/2018 presumed AFTAP} = \frac{1{,}300{,}000 - 182{,}353}{1{,}397{,}059} = 80\%$$

When the current year AFTAP has not been certified as of March 31, the presumed AFTAP as of April 1 is presumed to be 10 percentage points less than the January 1 presumed AFTAP (as modified by any reduction in funding balance). So as of 4/1/2018, the presumed AFTAP is 70% (80% - 10%). Once again, a presumed funding target must be determined, using the 1/1/2018 actuarial value of assets.

$$\text{4/1/2018 presumed AFTAP} = \frac{1{,}300{,}000 - 182{,}353}{\text{presumed funding target}} = 70\%$$

Presumed funding target = 1,596,639

In order to increase the 4/1/2018 presumed AFTAP to 80%, the prefunding balance must be reduced to 22,689.

$$\text{Modified 4/1/2018 presumed AFTAP} = \frac{1{,}300{,}000 - 22{,}689}{1{,}596{,}639} = 80\%$$

The 1/1/2018 prefunding balance, determined as of 4/1/2018, is $22,689

Answer is A.

Question 35

The AFTAP, as defined in IRC section 436(j)(1) and determined on the plan valuation date, is equal to the ratio of the actuarial value of assets (reduced by the funding balances) to the funding target, with both the numerator and denominator increased by the total purchases of annuities for the NHCEs during the last 2 years. There are no purchases of annuities in this question.

$$2016\ \text{AFTAP} = \frac{1{,}050{,}000}{1{,}150{,}000} = 91.30\%$$

$$2017\ \text{AFTAP} = \frac{1{,}100{,}000 - 59{,}000}{1{,}300{,}000} = 80.08\%$$

Benefit restrictions apply once the AFTAP drops below 80%,

When the current year AFTAP has not been certified as of the first day of the year, the presumed AFTAP is equal to the prior year AFTAP. So as of 1/1/2017, the presumed AFTAP is 91.3%. No benefit restrictions would apply.

When the current year AFTAP has not been certified as of March 31, the presumed AFTAP as of April 1 is presumed to be 10 percentage points less than the January 1 presumed AFTAP. So as of 4/1/2017, the presumed AFTAP is 81.3% (91.3% - 10%). No benefit restrictions would apply.

When the current year AFTAP has not been certified as of September 30, the AFTAP as of October 1 is presumed to be less than 60%, and all benefit restrictions would apply. Therefore, the latest date that the 2017 AFTAP can be certified in order to avoid benefit restrictions is September 30, 2017.

The answer is C.

Question 36

When a plan's AFTAP is at least 60% and less than 80%, if the plan provides for lump sum distributions, only a partial lump sum may be provided as described in IRC section 436(d)(3). This partial lump sum payment is equal to the smaller of:

(1) 50% of the lump sum that could be paid without regard to IRC section 436, or
(2) The present value of the maximum guaranteeable benefit dollar amount ($5,369.32 per month for 2017, using tables provided with the exam) valued using IRC section 417(e)(3) applicable interest and mortality. Note that IRC section 436(d)(3)(A)(ii) indicates that the present value of the maximum guaranteeable benefit is determined based upon guidance from the PBGC. That guidance was provided in PBGC Technical update 07-04. In that technical update, the PBGC indicated that the present value of the maximum guaranteeable benefit for annuity starting dates in any calendar year was to be determined using the 417(e)(3) segment rates published for August of the prior year. That rate in this question is the rate titled "Present value of the PBGC maximum guarantee under ERISA section 4022." Note that the rate titled "Applicable IRC section 417(e) assumptions" is the rate to be used under plan assumptions in this question.

Present value of plan lump sum (using IRC section 417(e) assumptions):

$12,300 × 12 × 13.28 = $1,960,128

50% of plan lump sum = 50% × $1,960,128 = $980,064

Present value of PBGC maximum guaranteeable benefit (using present value of PBGC maximum guarantee assumptions):

$5,369.32 × 12 × 14.17 = $912,999

The maximum lump sum that can be paid to Smith is equal to the smaller of 50% of the plan lump sum or the present value of the PBGC maximum. This is $912,999.

Answer is A.

Question 37

IRC section 415(b)(1) provides that the maximum benefit payable to a participant in a defined benefit plan is equal to the smaller of $160,000 (as adjusted for cost of living increases) or 100% of the highest consecutive 3-year average salary. In this question, Smith's high 3-year average salary could not be more than $5,000.

IRC section 415(b)(4) provides that in no event is the maximum benefit less than an annual benefit of $10,000 (provided the participant has never participated in a defined contribution plan sponsored by the same employer – not the case since the exam general conditions state that the employer has never sponsored any other plan).

IRC section 415(b)(5) provides that both the high 3-year average salary limit and the $10,000 de minimis limit are reduced proportionately if the participant has less than 10 years of service. Smith has only 6 years of service as of 12/31/2018, so the de minimis benefit is reduced to $6,000 ($10,000 × 6/10). As of 12/31/2018, it is not possible for Smith to have an accrued benefit of more than $6,000. The statement is false.

Answer is B.

Question 38

The benefit payable to a participant must be limited under IRC section 415(b) to the smaller of the IRC section 415 dollar limit ($215,000 for 2017) or the IRC section 415 compensation limit. The IRC section 415 compensation limit is equal to 100% of the high consecutive 3-year average compensation. No compensation information is provided in this question, so it must be assumed that the compensation limit does not apply.

Smith's plan annuity (using the 7% conversion factors representing plan actuarial equivalence) under each of the two given benefit forms is:

10-year certain and life: $217,200 × 0.976 = $211,987.20
Joint and 50% survivor: $217,200 × 0.939 = $203,950.80

The section 415 dollar maximum must be adjusted under Treasury regulation 1.415(b)-1(c)(2) to be equal to the smaller of the benefit in the form elected equivalent to the life annuity adjusted using plan equivalence assumptions or the benefit in the form elected using 5% interest and the applicable mortality table. The smaller of the two benefits is the one determined using the smaller of the two equivalence factors.

For the 10-year certain and life annuity, the smaller factor is 0.976. For the joint and 50% survivor annuity the smaller factor is 0.928. The section 415 limits for each of the optional forms are:

10-year certain and life: $215,000 × 0.976 = $209,840.00
Joint and 50% survivor: $215,000 × 0.928 = $199,520.00

The section 415 limit is smaller under each form of benefit than the plan benefit, so each plan benefit is limited.

X = $209,840 and Y = $199,520

X – Y = $209,840 – $199,520 = $10,320

Answer is D.

Question 39

Smith has delayed retirement from normal retirement age 62 (on 1/1/2017) and has received a suspension of benefits notice. Therefore, Smith's accrued benefit on or after 1/1/2017 is based solely on compensation history and service through the actual retirement date – benefits are not actuarially increased from normal retirement age 62.

The benefit payable to a participant must be limited under IRC section 415(b) to the smaller of the IRC section 415 dollar limit or the IRC section 415 compensation limit. The IRC section 415 compensation limit is equal to 100% of the high consecutive 3-year average compensation (reduced pro-rata for years of service less than 10). Smith has 9 years of service as of 1/1/2017, so the high 3-year average compensation as of 1/1/2017 must be reduced by 1/10. There is no reduction to the high 3-year average compensation as of 1/1/2018.

$$\text{1/1/2017 high 3-year average compensation} = \frac{\$150{,}000 + \$140{,}000 + \$190{,}000}{3}$$
$$= \$160{,}000$$

$$\text{1/1/2018 high 3-year average compensation} = \frac{\$140{,}000 + \$190{,}000 + \$210{,}000}{3}$$
$$= \$180{,}000$$

The IRC section 415(b) dollar limit in effect for 2017 is $215,000 and for 2018 is $220,000. The dollar limit must be reduced pro-rata for years of plan participation less than 10. Smith entered the plan on 1/1/2010 (due to the eligibility service requirement of 2 years), and has only 7 years of plan participation as of 1/1/2017, with 8 years as of 1/1/2018.

Smith's annual accrued benefit on each date (1/1/2017 and 1/1/2018) is equal to the smallest of the plan accrued benefit, the 415(b) compensation limit, and the 415(b) dollar limit.

<u>1/1/2017</u>

Plan benefit = 95% × $160,000 = $152,000
415(b) compensation limit = $160,000 × (9/10) = $144,000
415(b) dollar limit = $215,000 × (7/10) = $150,500
Y = $144,000

1/1/2018

Plan benefit = 100% × $180,000 = $180,000
415(b) compensation limit = $180,000
415(b) dollar limit = $220,000 × (8/10) = $176,000
X = $176,000

X – Y = $176,000 – $144,000 = $32,000

Answer is D.

Question 40

The top heavy ratio as described in IRC section 416(g)(1) is equal to the ratio of the present value of accrued benefits for the key employees to the present value of accrued benefits for all employees. All plans of the employer that include at least one key employee must be aggregated for purposes of the top heavy ratio. There are key employees in each of the defined benefit and profit sharing plans, so the two plans must be aggregated.

Treasury regulation 1.416-1, Q&A 32 deals with the treatment of rollovers for purposes of the top heavy ratio. If the rollover is a related rollover (it came from a plan of the same employer), then it is included in the top heavy ratio. The rollover in this question is a related rollover and must be included in the top heavy ratio. It is irrelevant that the rollover came from an in-service distribution.

Top heavy ratio =

$$\frac{\$600{,}000 + \$390{,}000 + \$400{,}000}{\$600{,}000 + \$390{,}000 + \$400{,}000 + \$425{,}000 + \$275{,}000} = 0.6651, \text{ or } 66.51\%$$

Answer is D.

Question 41

There are three ways that an employee could be considered a key employee under IRC section 416(i)(1)(A):

(1) An officer of the company earning more than $130,000 per year (indexed to $175,000 for the 2017 and 2018 years).

(2) A 5% owner of the company (owns more than 5%).

(3) A 1% owner of the company (owns more than 1%) who earns more than $150,000 (not indexed).

Smith is an officer and a 1% owner, but does not earn more than $150,000 (needed for both of those categories as a key employee requirement). It remains to determine whether Smith is a 5% owner. IRC section 414(b) states that employers of a controlled group are treated as a single employer for purposes of IRC section 416. However, IRC section 416(i)(1)(C) specifically states that the rules of IRC section 414(b) do not apply for purposes of determining ownership for key employees. Therefore, Smith's ownership for key employee purposes is 6% (the Company A ownership since the defined benefit plan is sponsored only by Company A).

Smith is a key employee. The statement is true.

Answer is A.

Question 42

The accrued benefit is equal to the greater of the plan accrued benefit or the top heavy minimum benefit. Smith has 6 years of service as of 1/1/2018.

$$\text{Plan accrued benefit} = 1.25\% \times \frac{\$55{,}000 + \$65{,}000 + \$70{,}000}{3} \times 6 \text{ years of service}$$
$$= \$4{,}750$$

The top heavy minimum benefit under IRC section 416(c)(1) is equal to 2% of the high consecutive 5-year average salary per year of top heavy plan participation (participation during years in which the plan was top heavy), up to a maximum of 10 years. The plan was top heavy from 2012 through 2016, for a total of 5 years (Smith was a participant for all 5 years, having been hired on 1/1/2012). For purposes of the 5-year average salary, years since the last top heavy year (2016) are not taken into account (IRC section 416(c)(1)(D)(iii)(II)). (Note that although it is not explicitly stated in the question, it must be assumed that the plan is not top heavy in 2018.)

Top heavy minimum benefit

$$= 2.00\% \times \frac{\$40{,}000 + \$45{,}000 + \$55{,}000 + \$55{,}000 + \$65{,}000}{5} \times 5 \text{ years}$$
$$= \$5{,}200$$

Smith has 6 years of service and is fully vested under both the 5-year cliff schedule and the 6-year graded schedule, so it is irrelevant which schedule currently applies.

Smith's accrued benefit as of 1/1/2018 is equal to the greater of the two benefits, which is $5,200.

Answer is C.

Question 43

The top heavy minimum benefit under IRC section 416(c)(1) is equal to 2% of the high consecutive 5-year average salary per year of top heavy plan participation (participation during years in which the plan was top heavy), up to a maximum of 10 years. Smith has 24 years of service as of 12/31/2017. The plan has always been top heavy, so the maximum 10 years is used for Smith.

Top heavy minimum monthly benefit = 2.00% × ($25,000/12) × 10 years = $416.67

Answer is A.