Question 1

The instructions to Form 5500-SF state that the short form for a small plan can be filed if there are fewer than 100 participants as of the beginning of the plan year, or if the plan was eligible to file Form 5500-SF for the prior year and has no more than 120 participants as of the first day of the current year.

With 121 participants as of the first day of 2020, the plan does not meet either requirement, and cannot file Form 5500-SF for 2020.

The statement is false.

Answer is B.

Question 2

IRC section 4975(a) states that the initial excise tax on a prohibited transaction is 15%. IRC section 4975(c)(1)(B) states that the lending of money between the plan and a disqualified person is a prohibited transaction. IRC section 4975(e)(2)(C) states that the employer sponsoring a plan is a disqualified person.

Revenue Ruling 2002-43 provides rules to determine the amount of the excise tax for a prohibited loan. The excise tax is equal to 15% of the interest paid or accrued with respect to the loan. The interest rate used to determine the interest must be at least as large as the fair market interest rate, which is the case in this question. Using the 8% interest rate, the 2019 loan interest is:

$100,000 \times 8\% = \$8,000$

2019 excise tax $= \$8,000 \times 15\% = \$1,200$

The statement is true.

Answer is A.

Question 3

Treasury regulation 1.401(a)(4)-3(b)(6)(ii) states that a plan that takes permitted disparity into account in a manner that satisfies IRC section 401(l) is a safe harbor plan for purposes of IRC section 401(a)(4). The statement is false.

Answer is B.

Question 4

The ratio percentage test of IRC section 410(b) states that the following ratio must be at least 70%:

$$\frac{\left(\dfrac{\text{NHCEs Benefiting}}{\text{Nonexcludable NHCEs}}\right)}{\left(\dfrac{\text{HCEs Benefiting}}{\text{Nonexcludable HCEs}}\right)}$$

Using the data provided in the question:

$(15/30)/(8/10) = 62.5\%$

The plan does not satisfy the ratio percentage test.

The statement is false.

Answer is B.

Question 5

The regulations under IRC section 410(b) provide a chart (given as a handout with the exam) that allows the determination of the safe and unsafe harbor percentages using the NHCE concentration percentage. In order to use the chart, the NHCE concentration percentage is rounded down to the next integer (truncated). The given NHCE concentration percentage of 86.67% is rounded down to 86%. Using the chart, the unsafe harbor percentage is 20.50%. The statement is false.

Answer is B.

Question 6

IRC section 411(a) provides that a participant's right to their normal retirement benefit must become non-forfeitable upon the attainment of normal retirement age.

The statement is true.

Answer is A.

Question 7

IRC section 401(a)(14) states that under a qualified plan, the payment of benefits to a participant must begin no later than the 60th day after the close of the plan year following the latest of:

(1) The date on which the participant attains the earlier of age 65 or the plan's normal retirement age;
(2) The 10th anniversary of plan participation; or
(3) The participant's termination of employment with the employer.

In this question, the latest of those options is Smith's termination of employment at age 64. The benefit payments must begin within 60 days following the close of the plan year in which Smith turned age 64.

The statement is false.

Answer is B.

Question 8

Under the Small Plan Lookback Rule, the PBGC variable premium is based on the vested benefits from the prior year funding target (see 2019 PBGC premium instructions). So for the 2019 PBGC premium, the vested portion of benefits from the 2018 funding target is used.

The statement is false.

Answer is B.

Question 9

ERISA regulation 4006.6(a) provides that an individual is considered a participant for purposes of PBGC premiums if the plan has benefit liabilities with respect to that participant. An active participant would have benefit liabilities provided they have accrued a benefit, as Smith has in this question.

The statement is true.

Answer is A.

Question 10

ERISA regulation 4050.103(a) provides that in the case of a missing participant, the plan administrator must either purchase an irrevocable commitment from an insurer, or transfer the money to the PBGC. There is no exception that would allow for the benefit to be transferred to an IRA, in the case of a benefit less than the mandatory cash-out.

The statement is false.

Answer is B.

Question 11

The PBGC Form 500/501 instructions state that Form 501 must be filed generally within 30 days of the last distribution date of plan benefits. There is an exception that would allow the filing to take place within 60 days, but in any case, the 89 days that have elapsed in this question would be a late filing.

The statement is true.

Answer is A.

Question 12

The annual liability payment under ERISA section 4219(c)(1)(C)(i) for an employer that has completely withdrawn from a multiemployer plan is equal to the product of (a) the high three year average of the contribution base units during the past 10 years ending before the year of withdrawal, and (b) the highest contribution rate in the past 10 years ending with the year of withdrawal. For part (a) the 10-year period ends in 2018, and for part (b) it ends in 2019.

The statement is false.

Answer is B.

Question 13

ERISA sections 4209(c) and (d) provide that in the case of a mass withdrawal within 3 years of an employer's complete withdrawal, the completely withdrawn employer is considered to be part of the mass withdrawal and the de minimis rule under ERISA section 4209 does not apply to that employer.

The statement is true.

Answer is A.

Question 14

IRC section 4980(d)(1) provides that, unless the plan sponsor establishes a qualified replacement plan or increases benefits, the excise tax upon reversion of assets to the employer is 50%, not 20%.

The statement is false.

Answer is B.

Question 15

Interpretive bulletin 2509.95-1(c) provides guidelines for selecting an annuity provider. Under that bulletin, there are a number of guidelines that must be considered. Therefore, the selection of Company B solely because the plan does not have enough assets to select Company A would be a violation of that section of the interpretive bulletin.

The statement is false.

Answer is B.

Question 16

IRC section 4975(c)(1)(B) states that the lending of money between the plan and a disqualified person (party-in-interest) is a prohibited transaction. Therefore, even though the loan is repaid during the same year, it is still a prohibited transaction.

The statement is true.

Answer is A.

Question 17

ERISA regulation 901.20(f)(2) provides that an actuary, when advising a client with regard to a document to be filed with the Department of Labor, may not ignore the implications of information known by the enrolled actuary to be inconsistent with the document being reviewed.

The statement is true.

Answer is A.

Question 18

Treasury regulation 1.436-1(h)(4)(v)(B) requires that in the event a contribution is made to allow a plan amendment to take effect, the AFTAP must be recertified only when the AFTAP without taking into account the plan amendment was at least 80%, and the contribution made is sufficient to result in an AFTAP of exactly 80% if the contribution were included as part of the assets and the funding target were to include the additional liability resulting from the plan amendment. However, there is no such recertification requirement if the AFTAP was less than 80% and the contribution was equal to the increase in the funding target under the plan amendment (the point of contributing an amount that covers the increase in the funding target due to the plan amendment is that the employer has totally funded the increase in the past service liability due to the amendment).

The statement is false.

Answer is B.

Question 19

Treasury regulation 1.436-1(d)(7) states that in the case of a plan that is subject to limitations on accelerated distributions, when there is a payment allowed under IRC section 411(a)(11) with regard to lump sum payments not to exceed $5,000, those payments are not subject to restriction. Therefore, Smith can be paid $4,500 upon termination of employment.

The statement is true.

Answer is A.

Question 20

Treasury regulation 1.415(b)-1(a)(5)(i) does not allow the use of compensation in excess of the limitation under IRC section 401(a)(17) for purposes of applying the rules of IRC section 415. As a result, the IRC section 415 compensation limit is determined reflecting the rules of IRC section 401(a)(17)

The statement is true.

Answer is A.

Question 21

The top heavy minimum benefit when an employer maintains only a defined contribution plan is generally a contribution of 3% of compensation (IRC section 416(c)(2)). Only the non-key employees are required to receive the top heavy minimum. When there is both a defined benefit and defined contribution plan, the rules are more complicated and are described in Treasury regulation 1.416-1, Q&A M-12. That regulation states that for non-key employees covered only in one plan, they receive the top heavy minimum benefit under the rules for that plan. So in this question, the non-key employees who do not participate in the defined benefit plan must receive the 3% top heavy minimum contribution. For those non-key employees who participate in those plans, the regulation requires that they receive the 5% safe harbor top heavy minimum contribution if the top heavy minimum is to be provided in the defined contribution plan only.

The statement is false.

Answer is B.

Question 22

The top heavy minimum benefit in a defined benefit plan under the rules of IRC section 416(c)(1) is a benefit equal to 2% of the high consecutive 5-year average compensation per year of service while participating in a top heavy plan, only for the years that the plan is top heavy, up to a maximum of 10 years. This benefit is payable as a life annuity.

The benefit offered in this question provides a 2% benefit for all years of service, and is in the form of a life with 10 years certain, which is more valuable than the required top heavy minimum.

The statement is true.

Answer is A.

Question 23

The top heavy minimum vesting rules under IRC section 416(b)(2) require that the plan must provide a vesting schedule at least as good as the 3 year cliff vesting (100% after 3 years of service) or the 6 year graded vesting schedule (20% after 2 years, 40% after 3 years, 60% after 4 years, 80% after 5 years and 100% after 6 years).

The vesting schedule in this question does not provide 100% vesting after 3 years, so it does not meet the requirements of the 3 year cliff schedule. In addition, the vested percentage after 5 years is only 75% (not 80%) so it does not meet the requirements of the 6 year graded schedule.

The statement is false.

Answer is B.

Question 24

DOL regulation 2520.104b-2(a) provides that a Summary Plan Description must be provided to a participant by the later of (1) 90 days after becoming a participant, or (2) 120 days after the effective date of the plan. In this case, the plan becomes effective on the date the participant enters, so X = 120.

Answer is E.

Question 25

Treasury regulation 54.4980F-1, Q&A 10 states that only participants expected to receive a significant reduction in future benefit accruals are required to receive an ERISA section 204(h) notice. The inactive participants would not be affected by the freezing of future benefit accruals, so they would not be required to receive the notice. Example 3 in the regulation illustrates this situation.

The statement is false.

Answer is B.

Question 26

A measurement period of the current year used to determine the most valuable accrual rate requires the use of the accrued benefit increase during 2019. The 2019 accrual for Smith is $1,000 ($20,000 - $19,000).

The most valuable benefit is deemed to be the qualified joint and survivor annuity (Treasury regulation 1.401(a)(4)-3(d)(1)(ii)). Based upon the terms of this plan, the QJSA is a 75% joint and survivor annuity actuarially equivalent to the life annuity benefit. In addition, there is an early retirement benefit equal to the accrued benefit reduced by 2% per year of payment prior to age 65. Smith is age 63 as of 12/31/2019, so that is the earliest age at which Smith could elect early retirement. The benefit must be normalized to a life annuity payable at age 65, using testing assumptions. The most valuable accrual is equal to the greatest of the normalized benefits if Smith should retire at age 63, 64, or 65.

Benefit payable under terms of plan as a QJSA if Smith retires at:

Age 63: $1,000 × 0.96 × (12.39/13.43) = $885.66
Age 64: $1,000 × 0.98 × (12.09/13.14) = $901.69
Age 65: $1,000 × (11.79/12.86) = $916.80

Normalizing each of these benefits using testing assumptions:

Retirement age 63: $885.66 × 9.34 × 1.08^2 ÷ 8.14 = $1,185.32
Retirement age 64: $901.69 × 9.15 × 1.08 ÷ 8.14 = $1,094.66
Retirement age 65: $916.80 × 8.95 ÷ 8.14 = $1,008.03

The most valuable accrual is the greatest of these, which is $1,185.32

The most valuable accrual rate is equal to the ratio of the most valuable accrual to the testing compensation.

$$\text{Most valuable accrual rate} = \frac{\$1,185.32}{\$50,000} = 0.0237, \text{ or } 2.37\%$$

Answer is C.

Question 27

When plans are aggregated for coverage testing under IRC section 410(b), the number of non-excludable employees is based upon the shortest eligibility period for each participant under the terms of the plans (Treasury regulation 1.410(b)-6(b)(2)). In this question, the immediate eligibility requirement of Plan A is used to determine the non-excludable employees for the aggregated plan. As a result, all employees are non-excludable.

Total non-excludable employees = 32 + 57 + 8 + 102 + 14 = 213

Answer is E.

Question 28

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.

Treasury regulation 1.410(b)-6(d)(1) states that collectively bargained employees are treated as excludable employees, even if they are benefiting in the plan (the part of the plan covering the collectively bargained employees is essentially disaggregated). So the collectively bargained employees in this question are considered excludable.

The plan has a one year of service eligibility requirement, so the employees with less than one year of service are considered excludable.

Nonexcludable employees: HCEs: 1 + 4 = 5   NHCEs: 6 + 22 = 28
Benefiting employees: HCEs: 4   NHCEs: 22

Ratio percentage = (22/28)/(4/5) = 0.9821, or 98.21%

Answer is C.

Question 29

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. Note that it must be assumed that the numbers of employees provided in the question are all nonexcludable employees, as there is no way to make such a determination with the given information.

Minimum ratio percentage $= (X/37)/(2/3) = 0.7$

$X = 17.27$, rounded up to 18 (there cannot be a fractional employee)

So at a minimum, there must be at least 18 NHCEs benefiting in order for the plan to pass the ratio percentage test.

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

Total non-excludable employees $= 1 + 2 + 37 = 40$

Using the 40% rule to satisfy the minimum participation rules:

40% of $40 = 16 \qquad \rightarrow \qquad Y = 16$

At least 16 employees must receive a meaningful benefit in order to satisfy the minimum participation rules. Note that it is given that there are 2 HCEs benefiting under the plan. Had there been no HCEs benefiting under the plan, then the correct answer would be Y=1, because a plan that does not benefit any HCEs automatically satisfies the minimum participation requirement.

$X + Y = 18 + 16 = 34$

Answer is A.

Question 30

IRC section 417(a)(1) requires a defined benefit plan to offer a qualified joint and survivor annuity (QJSA) option to married participants, with a minimum survivor annuity for the spouse of 50% and a maximum survivor annuity of 100% of the benefit that would be payable over the joint lives of the participant and the spouse.

IRC section 417(c)(1)(A) states that the qualified preretirement survivor annuity (QPSA) percentage cannot be less than the qualified joint and survivor annuity percentage. The QJSA percentage is given to be 75% in this question, so the smallest QPSA percentage that must be provided in this plan is equal to 75%. Note that most exam questions of this type have a statement that the QPSA percentage is the smallest allowed (75% in this case). That statement was not made in this question, so while the intended solution assumed that 75% was the QPSA percentage, credit was also given if 100% was used (there is enough information in the question to calculate that as the QPSA).

The preretirement death benefit payable to a spouse as a QPSA upon the death of the participant is payable at the earliest possible retirement age had the participant not died (IRC section 417(c)(1)(A)(ii)). The benefit payable to the spouse is the spousal benefit that would have been paid if the participant had elected to retire at that earliest retirement age and then died.

Note that no QPSA benefit is required to be paid if the participant and spouse have been married for less than one year as of the date of death (IRC section 417(d)). The question states that the participant and spouse had been married for over one year at the time of death.

Smith has died at age 57 and had 32 years of service, so the earliest retirement age at which Smith could have retired had Smith not died is age 57 (Smith satisfied the 10 years of service requirement for early retirement). The early retirement benefit is the accrued benefit reduced by 3% for the 8 years that retirement would have preceded age 65, which is a 24% reduction.

Accrued benefit as of 1/1/2020 = 1% × $85,000 × 32 years of service = $27,200

Early retirement benefit at age 57 = $27,200 × 0.76 = $20,672

The accrued benefit must be adjusted to a 75% J&S benefit (multiplied by the adjustment factor of 0.86).

75% QJSA benefit = $20,672 × 0.86 = $17,778

75% of this amount is the QPSA benefit payable to Smith's spouse.

QPSA benefit = 75% × $17,778 = $13,333.50

Answer is B.

Note that if the 100% QPSA had been assumed, then:

100% QJSA benefit = $20,672 × 0.82 = $16,951, which would be the QPSA benefit. Answer choice D was also deemed as a correct answer.

Question 31

I. A qualified joint and survivor annuity (QJSA) can be a paid as the form of benefit for a participant who is retiring. The participant has died in this question, so no QJSA will be paid. However, the spouse will receive a qualified preretirement survivor annuity. The statement is false.

II. IRC section 417(b) defines the survivor annuity as an amount equal to at least 50% the actuarial equivalent of a life annuity. Therefore, it is not necessarily equal to at least 50% of the accrued benefit, but the actuarial equivalent of that accrued benefit in the survivor annuity form. The statement is false.

III. Smith has died before beginning to receive benefit payments, so Smith's spouse is eligible for a qualified preretirement survivor annuity (QPSA) under IRC section 417(c). Note that in order for the spouse to be eligible, the marriage needs to have been at least one year old (in this question they have been married for 24 years). The statement is true.

IV. IRC section 417(c) provides that the QPSA is payable for the life of the surviving spouse, so the payments would not stop upon remarriage. The statement is false.

Answer is C.

Question 32

Smith reached normal retirement age (65) on 12/31/2016. Smith's normal retirement benefit was:

$$75\% \times \frac{\$90,000 + \$70,000 + \$75,000}{3} = \$58,750$$

Note that Smith's highest consecutive 3-year average salary is from the years 2013 – 2015.

Under the terms of this plan, the late retirement benefit is equal to the greater of the plan benefit at the time of actual retirement (taking into account salary changes since normal retirement age) and the actuarial equivalent of the prior year benefit. Smith's benefit must be calculated as of 1/1/2020, three years after reaching normal retirement age. The benefit must be calculated at each year since normal retirement to determine which benefit each year is larger, the plan formula benefit or the actuarial equivalent of the prior year benefit.

Benefit as of 1/1/2018:

Plan formula benefit: $75\% \times \dfrac{\$75,000 + \$85,000 + \$95,000}{3} = \$63,750$

Actuarial equivalent of prior year benefit $= \$58,750 \times \ddot{a}_{65}^{(12)} \times 1.05 \div \ddot{a}_{66}^{(12)}$

$\qquad\qquad\qquad\qquad\qquad = \$58,750 \times 11.794 \times 1.05 \div 11.493 = \$63,303$

The larger of these is $63,750.

Benefit as of 1/1/2019:

Plan formula benefit: $75\% \times \dfrac{\$75,000 + \$85,000 + \$95,000}{3} = \$63,750$

Actuarial equivalent of prior year benefit $= \$63,750 \times \ddot{a}_{66}^{(12)} \times 1.05 \div \ddot{a}_{67}^{(12)}$

$\qquad\qquad\qquad\qquad\qquad = \$63,750 \times 11.493 \times 1.05 \div 11.191 = \$68,744$

The larger of these is $68,744.

Benefit as of 1/1/2020:

Plan formula benefit: $75\% \times \dfrac{\$75,000 + \$85,000 + \$95,000}{3} = \$63,750$

Actuarial equivalent of prior year benefit $= \$68,744 \times \ddot{a}_{67}^{(12)} \times 1.05 \div \ddot{a}_{68}^{(12)}$

$\qquad\qquad\qquad\qquad\qquad = \$68,744 \times 11.191 \times 1.05 \div 10.886 = \$74,204$

The larger of these is $74,204.

Answer is D.

Question 33

IRC section 411(a)(4)(A) provides that service for years prior to reaching age 18 can be ignored for vesting purposes. Smith reached age 18 on 1/1/2011, so service before that date can be ignored. Smith has 3 years of service for vesting purposes as of 12/31/2013 when Smith terminated employment, and then 3 more years upon reemployment on 1//1/2017 through 1/1/2020, for a total of 6 years of service. Using the 7-year graded vesting schedule of IRC section 411(a)(2)(a)(iii), Smith is 80% vested.

Answer is D.

Note that IRC section 411(a)(6)(D) provides that a participant with 5 consecutive years of breaks in service who is non-vested prior to those years can have their vested percent determined ignoring the years of service prior to those break years. In the case of Smith, the period of termination was for only 3 years, and Smith was 20% vested after the first 3 years of service, so Smith would not qualify to have IRC section 411(a)(6)(D) apply.

Question 34

The total PBGC premium under ERISA section 4006 consists of a flat-rate premium and a variable-rate premium. For 2020, the flat-rate premium is equal to $83 per participant. The participant count is based on the number of plan participants as of the last day of the prior plan year (12/31/2019). Participants include vested and non-vested active participants, vested terminated participants, and retired participants. Alternate payees of deceased participants are included in the count because there is no other category to define deceased participants.

The plan has 28 active participants (24 vested + 4 non-vested), 10 retirees, and 1 alternate payee of a deceased participant, for a total of 39 participants to be counted for the flat-rate premium.

Flat-rate premium = 39 × $83 = $3,237

The PBGC variable-rate premium for 2020 is equal to 4.5% of the unfunded vested benefits. The alternative premium funding target is used in this question, which uses the value of the vested funding target without the use of stabilized interest rates. Market value of assets is used for premium purposes.

Note that a small plan (no more than 100 participants as of the first day of the year) generally uses the prior year valuation results for purposes of the variable premium. This plan has opted out of the Small Plan Lookback Rule.

2020 variable premium unfunded liability = $800,000 – $415,000 = $385,000

2020 variable-rate premium = $385,000 × 0.045 = $17,325

In 2020, there is a variable premium cap of $561 per plan participant.

Variable premium cap = $561 × 39 participants = $21,879

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 at least 26 employees (the 28 active participants and 8 non-participating employees). So the small employer cap does not apply.

The 2020 variable-rate premium is $17,325.

Total 2020 PBGC premium = $3,237 + $17,325 = $20,562

Answer is E.

Question 35

The total PBGC premium under ERISA section 4006 consists of a flat-rate premium and a variable-rate premium. For 2020, the flat-rate premium is equal to $83 per participant. The participant count is based on the number of plan participants as of the last day of the prior plan year (12/31/2019). Participants include vested and non-vested active participants, vested terminated participants, and retired participants. Alternate payees of deceased participants are included in the count because there is no other category to define deceased participants.

Flat-rate premium = 84 × $83 = $6,972

The PBGC variable-rate premium for 2020 is equal to 4.5% of the unfunded <u>vested</u> benefits. The PBGC premium funding target is used in this question. Market value of assets is used for premium purposes.

Note that a small plan (no more than 100 participants as of the first day of the year) generally uses the prior year valuation results for purposes of the variable premium. The Small Plan Lookback Rule applies to this plan, so the unfunded vested benefits are determined as of the 1/1/2019 valuation date for purposes of the 2020 variable premium.

2020 variable premium unfunded liability = $4,500,000 − $3,500,000 = $1,000,000

2020 variable-rate premium = $1,000,000 × 0.045 = $45,000

In 2020, there is a variable premium cap of $561 per plan participant.

Variable premium cap = $561 × 84 participants = $47,124

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

Additionally, for small employers (no more than 25 <u>employees</u> as of the first day of the year), there is also a cap on the variable premium equal to the number of <u>participants</u> squared, multiplied by $5. The employer in this question has at only 20 employees on 1/1/2020, so the small employer cap applies.

Small employer cap = $5 × 84^2 = $35,280

The variable rate premium is limited by the small employer cap. The 2020 variable-rate premium is $35,280.

Total 2020 PBGC premium = $6,972 + $35,280 = $42,252

The answer is B.

Question 36

A participant has a benefit in priority category 3 of ERISA section 4044 if on the date exactly 3 years before the plan termination date they were either in pay status, or could have elected to be in pay status (that is, they could have elected to retire under the plan's early or normal retirement definition). See ERISA section 4044(a)(3). The category 3 benefit is equal to the amount that they would have received if they had retired 3 years before the plan termination date, using the worst benefit structure (the one that provides the smallest benefit) in effect during the 5 years prior to the plan termination date.

Smith is age 65 on the plan termination date, and retired one year earlier at age 64. Smith had 30 years of service. For purposes of category 3, Smith was age 62 with 28 years of service 3 years before the plan termination date, and could have retired at that time. The category 3 benefit uses the $160 benefit formula, as that is the worst benefit structure in effect during the 5 years prior to plan termination date. The benefit that Smith would have received on 1/1/2016 (3 years before the plan termination date) had Smith retired on that date is:

$Y = \$160 \times 28$ years of service $\times 0.91 = \$4,076.80$

Note that there is a 3% reduction per year prior to age 65, so the reduction factor at age 62 is 0.91.

The category 4 benefit is the guaranteed benefit as defined under ERISA section 4022.

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 of $5,607.95 for 2019). The benefit structure in effect 5 years before the plan termination date of 1/1/2019 is $160 per month per year of service. Smith retired on 1/1/2018, so the benefit that is guaranteed is based on service through that date. In addition, Smith's actual retirement age is 64, so there is a 3% reduction of the benefit for retirement before age 65 (this must be applied even though the guaranteed benefit is calculated as of the plan termination date).

Smith's benefit under original plan structure = 160×30 years of service $\times 0.97 = \$4,656.00$
This is fully guaranteed.

The vested accrued benefit increase under the 1/1/2015 plan amendment (increasing the benefit to $170) 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 4 years, so the phase-in percentage is 80% (20% × 4).

Smith benefit under $170 structure = 170×30 years of service $\times 0.97 = \$4,947.00$
Increase from prior plan formula = $4,947.00 - $4,656.00 = $291
Phase-in = 80% × $291 = $232.80

X = Total guaranteed benefit = $4,656.00 + 232.80 = $4,888.80

$X - $Y = $4,888.80 - $4,076.80 = $812

Answer is D.

Question 37

The withdrawal liability for Employer A is determined as of the end of the year prior to the complete withdrawal. The value of the unfunded vested benefits is multiplied by the ratio of the contributions made by Employer A over the 5-year period ending on 12/31/2019 to the contributions made by all employers.

Under the Rolling 5 method, the total unfunded vested benefits for the plan as of 12/31/2019 must be reduced by the value of the Affected Benefits, before multiplying by the 5-year ratio of contributions.

The unfunded vested benefit liability attributable to Employer A under the Rolling 5 method is:

$$\$30,000,000 \times \frac{500,000 + 450,000 + 400,000 + 350,000 + 300,000}{8,000,000 + 9,000,000 + 9,500,000 + 9,500,000 + 9,000,000} = \$1,333,333$$

The outstanding balance of the value of the Affected Benefits, amortized over 15 years using the plan valuation interest rate, is allocated to Employer A using the same contribution ratio, and added to the unfunded vested benefit liability attributable to Employer A under the Rolling 5 method.

Outstanding balance of Affected Benefits on 12/31/2019

$$= (\$1,500,000 \times \frac{\ddot{a}_{\overline{13}|6.5\%}}{\ddot{a}_{\overline{15}|6.5\%}}) + (\$400,000 \times \frac{\ddot{a}_{\overline{14}|6.5\%}}{\ddot{a}_{\overline{15}|6.5\%}}) = \$1,371,910 + \$383,459 = \$1,755,369$$

Allocation of Affected Benefits to Employer A:

$$\$1,755,369 \times \frac{500,000 + 450,000 + 400,000 + 350,000 + 300,000}{8,000,000 + 9,000,000 + 9,500,000 + 9,500,000 + 9,000,000} = \$78,016$$

Total allocation to Employer A = \$1,333,333 + \$78,016 = \$1,411,349

This is the complete withdrawal liability since the de minimis credit is clearly phased out (the total allocation of unfunded vested benefits exceeds \$150,000).

Answer is E.

Question 38

The withdrawal liability for Employer A is determined as of the end of the year prior to the complete withdrawal. The value of the unfunded vested benefits is multiplied by the ratio of the contributions made by Employer A over the 5-year period ending on 12/31/2016 to the contributions made by all employers.

The unfunded vested benefit liability attributable to Employer A under the Rolling 5 method is:

$$\$5,000,000 \times \frac{2,525,000}{2,525,000 + 3,275,000 + 14,550,000} = \$620,393$$

This is the complete withdrawal liability for Employer A since the de minimis credit is clearly phased out (the total allocation of unfunded vested benefits exceeds \$150,000).

The withdrawal liability for Employer B is determined on 12/31/2018. The total unfunded vested benefits to be allocated to Employer B must be reduced by the collectible amounts from previously withdrawn Employer A. This is equal to 75% of the \$620,393 withdrawal liability. In addition, the contributions made by Employer A are not included in the liability allocation ratio.

The unfunded vested benefit liability attributable to Employer B under the Rolling 5 method is:

$$[\$8,000,000 - (75\% \times \$620,393)] \times \frac{2,800,000}{2,800,000 + 14,300,000} = \$1,233,753$$

This is the complete withdrawal liability for Employer B since the de minimis credit is clearly phased out (the total allocation of unfunded vested benefits exceeds \$150,000).

Answer is D.

Question 39

I.   IRC section 4975(e)(2)(A) defines a fiduciary as a disqualified person. A trustee is considered a fiduciary under IRC section 4975(e)(3). IRC section 4975(e)(2)(F) includes family members as a disqualified person, and IRC section 4975(e)(6) includes a spouse as a family member. Therefore, the spouse of a plan trustee is a disqualified person.

     The use of plan funds by a disqualified person is a prohibited transaction under IRC section 4975(c)(1)(D).

II.   IRC section 4975(e)(2)(B) defines a person providing services to a plan as a disqualified person, so the plan administrator is a disqualified person.

     The lending of money to a disqualified person is a prohibited transaction under IRC section 4975(c)(1)(B).

III.   IRC section 4975(e)(2)(C) defines the employer as a disqualified person, so the plan sponsor is a disqualified person.

     The sale of property between the plan and a disqualified person is a prohibited transaction under IRC section 4975(c)(1)(A).

All three actions are prohibited transactions.

Answer is D.

Question 40

I.   ERISA regulation 901.20(d)(2)(iii) states that an enrolled actuary can perform services when a conflict of interest exists provided the client waives the conflict of interest at the time that it first becomes known to the enrolled actuary. This cannot be done prospectively. The statement is false.

II.   ERISA regulation 901.20(d)(1)(i) states that an enrolled actuary cannot represent a client if that would adversely affect another client. The statement is true.

III.   ERISA regulation 901.20(d)(1)(ii) states that an enrolled actuary cannot represent a client if there is a significant risk that the actuary would be materially limited in representing another client. The statement is false.

Answer is B.

Question 41

Treasury regulation 1.436-1(f)(2)(iv)(A) states that for a plan in which the certified adjusted funding target attainment percentage (AFTAP) is less than 80%, an IRC section 436 contribution may be made in order to allow a plan amendment increasing liabilities to take effect. In addition, Treasury regulation 1.436-1(f)(2)(iv)(B) states that for a plan in which the certified adjusted funding target attainment percentage (AFTAP) is at least 80% but would be less than 80% if the increase in the funding target due to the plan amendment were included as part of the funding target in the AFTAP, an IRC section 436 contribution may be made in order to allow that ratio to be exactly 80% if the contribution were included in the numerator. Regulation 1.436-1(f)(2)(i)(A)(2) states that if the IRC section 436 contribution is made on a date other than the valuation date for the year, then the required contribution must be interest adjusted from the valuation date to the date of the contribution using the plan effective rate for that plan year. This question is asking for the additional contribution that could be made on 7/1/2019 that would allow the amendment increasing the funding target to take effect.

The amount of the IRC section 436 contribution is dependent on the AFTAP. 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.

$$2019 \text{ AFTAP} = \frac{(3,350,000 - 50,000) + 200,000}{4,100,000 + 200,000} = 81.40\%$$

If the increase in the funding target due to the plan amendment is included as part of the funding target in the AFTAP:

$$\frac{(3,350,000 - 50,000) + 200,000}{4,100,000 + 200,000 + 800,000} = 68.63\%$$

In order to increase this ratio to 80%, a contribution of \$X is deposited on 7/1/2019, and is interest adjusted using the plan effective rate of 6% for 6 months to the 1/1/2019 valuation date.

$$\frac{(3,350,000 - 50,000) + 200,000 + X / 1.06^{6/12}}{4,100,000 + 200,000 + 800,000} = 80.00\% \quad \rightarrow \quad X = 597,147$$

Answer is C.

Question 42

Treasury regulation 1.436-1(f)(2)(iv)(A) states that for a plan in which the certified adjusted funding target attainment percentage (AFTAP) is less than 80%, an IRC section 436 contribution may be made in order to allow a plan amendment increasing liabilities to take effect. In addition, Treasury regulation 1.436-1(f)(2)(iv)(B) states that for a plan in which the certified adjusted funding target attainment percentage (AFTAP) is at least 80% but would be less than 80% if the increase in the funding target due to the plan amendment were included as part of the funding target in the AFTAP, an IRC section 436 contribution may be made in order to allow that ratio to be exactly 80% if the contribution were included in the numerator. Regulation 1.436-1(f)(2)(i)(A)(2) states that if the IRC section 436 contribution is made on a date other than the valuation date for the year, then the required contribution must be interest adjusted from the valuation date to the date of the contribution using the plan effective rate for that plan year. This question is asking for the additional contribution that could be made on 6/30/2019 that would allow the amendment increasing the funding target to take effect.

The amount of the IRC section 436 contribution is dependent on the AFTAP. 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.

Total purchases of annuities for the NHCEs during 2017 and 2018
$$= (50,455 - 10,128) + (59,786 - 51,298) = 48,815$$

$$2019 \text{ AFTAP} = \frac{(1,851,299 - 102,188) + 48,815}{2,054,878 + 48,815} = 85.47\%$$

If the increase in the funding target due to the plan amendment is included as part of the funding target in the AFTAP:

$$\frac{(1,851,299 - 102,188) + 48,815}{2,489,178 + 48,815} = 70.84\%$$

In order to increase this ratio to 80%, a contribution of $X is deposited on 6/30/2019, and is interest adjusted using the plan effective rate for 6 months to the 1/1/2019 valuation date. However, when the plan effective rate has not yet been determined, the highest of the three segment interest rates is used instead (Treasury regulation 1.436-1(f)(2)(i)(A)(2)). In this question, that is the segment 3 interest rate of 6.74%.

$$\frac{(1,851,299 - 102,188) + 48,815 + X/1.0674^{6/12}}{2,489,178 + 48,815} = 80.00\% \quad \rightarrow \quad X = 240,175$$

Answer is D.

Question 43

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. When the actuarial value of assets is at least as large as the funding target, the funding balances are ignored for purposes of the AFTAP (IRC section 436(j)(3)).

$$2020 \text{ AFTAP} = \frac{1,025,000}{1,000,000} = 102.5\%$$

The statement is false.

Answer is B.

Question 44

Smith has 7 years of service and 6 years of plan participation on 1/1/2019 (note that it must be assumed that the plan was in effect as of the date that Smith was hired, and there was a one year eligibility requirement). The benefit is based upon the highest consecutive 3-year average salary. Note that the 2014, 2015 and 2018 salaries must be limited to the IRC section 401(a)(17) compensation limit ($260,000 for 2014, $265,000 for 2015, and $275,000 for 2018).

1/1/2019 and 1/1/2020 high consecutive 3-year average compensation (average of 2014 – 2016)

$$= \frac{\$260,000 + \$265,000 + \$200,000}{3} = \$241,667$$

1/1/2019 accrued benefit = 57.5% × $241,667 = $138,959
1/1/2020 accrued benefit = 58.5% × $241,667 = $141,375

Smith reached normal retirement age on 1/1/2019, but there is no actuarial increase provided for the 1/1/2019 accrued benefit due to late retirement as a suspension of benefit notice has been provided.

The accrued 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).

1/1/2019 IRC section 415(b) compensation limit = $241,667 × (7/10) = $169,167
1/1/2020 IRC section 415(b) compensation limit = $241,667 × (8/10) = $193,334

The IRC section 415(b) dollar limit in effect for 2019 is $225,000 and for 2020 is $230,000. The dollar limit must be reduced pro-rata for years of plan participation less than 10.

1/1/2019 IRC section 415(b) dollar limit = $225,000 × (6/10) = $135,000
1/1/2020 IRC section 415(b) dollar limit = $230,000 × (7/10) = $161,000

The smaller of the IRC section 415(b) dollar limit and compensation limit is the dollar limit of $135,000 for 2019 and $161,000 for 2020.

Smith's plan accrued benefit as of 1/1/2019 must be limited to $135,000. The plan accrued benefit as of 1/1/2020 is not limited, as $141,375 is less than the IRC section 415 limit of $161,000.

$X = $141,375, and $Y = $135,000.

$X – $Y = $141,375 – $135,000 = $6,375

Answer is D.

Question 45

Smith has 9 years of service and plan participation on 12/31/2019. The benefit is based upon the average of the highest three years of salary, which are 2015, 2018, and 2019 (there is <u>not</u> the usual requirement that the years be consecutive). Note that all salaries are below the IRC section 401(a)(17) compensation limit.

12/31/2019 high 3-year average compensation

$$= \frac{\$171,000 + \$177,000 + \$200,000}{3} = \$182,667$$

$X = 12/31/2019$ accrued benefit $= 14\% \times \$182,667 \times 9$ years of service $= \$230,160$

The accrued 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).

12/31/2019 high consecutive 3-year average compensation

$$= \frac{\$156,000 + \$177,000 + \$200,000}{3} = \$177,667$$

12/31/2019 IRC section 415(b) compensation limit $= \$177,667 \times (9/10) = \$159,900$

The IRC section 415(b) dollar limit in effect for 2019 is \$225,000. The dollar limit must be reduced pro-rata for years of plan participation less than 10.

12/31/2019 IRC section 415(b) dollar limit $= \$225,000 \times (9/10) = \$202,500$

The smaller of the IRC section 415(b) dollar limit and compensation limit is the compensation limit of \$159,900.

Smith's plan accrued benefit as of 12/31/2019 must be limited to \$159,900. This is $Y.

$X - \$Y = \$230,160 - \$159,900 = \$70,260$

Answer is D.

Question 46

The accrued benefit is equal to the greater of the plan accrued benefit or the top heavy minimum benefit. Smith has 5 years of service as of 12/31/2019.

$$\text{Plan accrued benefit} = 1.35\% \times \frac{\$70,000 + \$75,000 + \$76,000}{3} \times 5 \text{ years of service}$$

$$= \$4,972.50$$

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 2015 through 2018, for a total of 4 years (Smith was a participant for all 4 years, having been hired on 1/1/2015). The plan is not currently top heavy for 2019, so salary paid since 2018 (the last top heavy year) is ignored for purposes of the 5-year average salary, essentially freezing the top heavy minimum at the 2018 level. The average will be a 4-year average as Smith only has 4 years of salary to average.

Top heavy minimum benefit

$$= 2\% \times \frac{\$60,000 + \$68,000 + \$70,000 + \$75,000}{4} \times 4 \text{ years}$$

$$= \$5,460$$

Smith's accrued benefit as of 12/31/2019 is equal to the greater of the plan benefit or the top heavy minimum benefit. This is the top heavy minimum benefit of $5,460.

The plan's vesting schedule applies in 2019 because the plan is not top heavy (although the vested percentage earned as of 12/31/2018 under the top heavy schedule cannot be reduced – with 4 years of service at that time, Smith's vested percentage under the top heavy schedule was 60%). Smith has 5 years of service, and so is fully vested as of 12/31/2019 under the plan's regular vesting schedule.

Smith's vested accrued benefit as of 12/31/2019 is $5,460.

Answer is B.

Question 47

The top heavy minimum benefit when an employer maintains only a defined contribution plan is generally a contribution of 3% of compensation (IRC section 416(c)(2)). Only the non-key employees are required to receive the top heavy minimum. When there are both defined benefit and defined contribution plans, the rules are more complicated and are described in Treasury regulation 1.416-1, Q&A M-12. That regulation states that for non-key employees covered only in one plan, they receive the top heavy minimum benefit under the rules for that plan. So in this question, the non-key employees who do not participate in the defined benefit plan can receive the 3% top heavy minimum contribution. For those non-key employees who participate in those plans, the regulation requires that they receive the 5% safe harbor top heavy minimum contribution if they are to receive the top heavy minimum in the defined contribution plan only.

Smith participates in both plans and must receive the 5% minimum, and Jones and Green are covered in only the profit-sharing plan and receive the 3% minimum. Brown is a key employee and does not receive a top heavy minimum benefit under the given terms of the plan. Note that receiving a top heavy minimum benefit has nothing to do with HCE status, which is why Green receives a top heavy minimum benefit. Green's salary of $290,000 must be limited to the 2019 IRC section 401(a)(17) salary limit of $280,000.

$$X = (5\% \times \$38,000) + [3\% \times (\$23,000 + \$280,000)] = \$10,990$$

Answer is D.

Question 48

The accrued benefit is equal to the greater of the plan accrued benefit or the top heavy minimum benefit. Smith has 14 years of service as of 12/31/2019.

$$\text{Plan accrued benefit} = 1\% \times \frac{\$68,000 + \$90,000 + \$90,000}{3} \times 14 \text{ years of service}$$

$$= \$11,573$$

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 2006 through 2017, for a total of 12 years (Smith was a participant for all 12 years, so Smith receives the maximum 10 years of top heavy plan participation). The plan is not currently top heavy for 2019, so salary paid since 2017 (the last top heavy year) is ignored for purposes of the 5-year average salary, essentially freezing the top heavy minimum at the 2017 level. The high consecutive 5-year average covers years 2012 - 2016.

Top heavy minimum benefit

$$= 2\% \times \frac{\$72,000 + \$75,000 + \$75,000 + \$65,000 + \$75,000}{5} \times 10 \text{ years}$$

$$= \$14,480$$

Smith's accrued benefit as of 12/31/2019 is equal to the greater of the plan benefit or the top heavy minimum benefit. This is the top heavy minimum benefit of $14,480.

Answer is C.

Question 49

The accrued 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's IRC section 415(b) compensation limit = $9,000 × (5/10) = $4,500

The IRC section 415(b) dollar limit will be significantly larger than this and can be ignored.

IRC section 415(b)(4) provides that when the IRC section 415 limit is less than $10,000 per year, the limit is increased to this de minimis amount. The $10,000 is subject to the same reduction for service less than 10 years as the IRC section 415 compensation limit.

De minimis IRC section 415 limit for Smith = $10,000 × (5/10) = $5,000.

Smith's IRC section 415 annual benefit limitation is $5,000.

The statement is false.

Answer is B.