Question 1

Fair market value must be used to determine the PBGC variable rate premium. See ERISA section 4006(a)(3)(E)(iii)(II).

The statement is false.

Answer is B.

Question 2

IRC section 4980F(c)(2) states that no excise tax will apply for a 204(h) notice that is provided late in the case that reasonable diligence is used, and the notice is provided within 30 days of the date it was originally required. In this case, the mistake was inadvertent, and was corrected within 15 days. No excise tax is imposed.

The statement is false.

Answer is B.

Question 3

IRC section 416(g)(4)(C) states that the determination date is the last day of the preceding plan year, or, in the case of a new plan the last day (not the first day) of the first plan year. The statement is false.

Answer is B.

Question 4

IRC section 401(a)(26) requires a minimum number of participants in a defined benefit plan equal to at least the smaller of:

(1) 40% of the nonexcludable employees of the employer (controlled group), or
(2) 50

IRC section 401(a)(26)(F) allows any separate line of business of the employer to be tested separately from the rest of the employer. Otherwise, all entities of the employer must be treated as one employer.

Plan C can be disaggregated from the other plans because location C is considered to be a separate line of business. There are 105 nonexcludable employees in location C (5 HCEs plus 100 NHCEs), and 40% of 105 is equal to 42. Plan C must have a minimum of 42 participants benefiting in order to satisfy the minimum participation requirements of IRC section 401(a)(26). There are only 40 participants (5 HCEs plus 35 NHCEs), so Plan C does <u>not</u> satisfy the minimum participation requirements.

Treasury regulation 1.401(a)(26)-1(b)(1) provides that a plan that does not benefit any HCEs is deemed to satisfy IRC section 401(a)(26). Plan D does not have any HCEs benefiting, so Plan D satisfies the minimum participation requirements.

In order to test plans A and B, the nonexcludable employees of Locations A, B, and D must be combined. There are a total of 325 nonexcludable employees from those three locations (5 + 110 + 10 + 60 + 50 + 90). 40% of 325 exceeds 50, so each of plans A and B must have at least 50 participants in order to satisfy IRC section 401(a)(26). Plan A has 65 participants, so Plan A satisfies the minimum participation requirements. Plan B has only 45 participants, so Plan B does <u>not</u> satisfy the minimum participation requirements.

Only plans A and D satisfy the minimum participation requirements, so 2 plans satisfy those requirements.

Answer is C.

Question 5

PBGC Technical Update 2012-2 indicates that the FTAP, used for the 80% Gateway Test, is determined without regard to the MAP-21 segment stabilization rates. The funding target of $7,300,000 should be used for that purpose. With that modification, the ERISA 4010 FTAP is determined under the rules of IRC section 430.

The FTAP under IRC section 430(d)(2) is equal to:

$$\frac{\text{Actuarial Vaue of Assets - Funding balances}}{\text{Funding Target}}$$

This is:

$$\frac{4{,}620{,}000 - 90{,}000 - 620{,}000}{7{,}300{,}000} = 53.56\%$$

Answer is D.

Question 6

I. If the present value of the annuity benefit, using PBGC missing participant lump sum assumptions is no more than $5,000, then that is the value of the designated benefit and the benefit payable to the missing participant, regardless of whether the plan has a lump sum option. See ERISA regulation 1.4050.5(a)(2). The statement is false.

II. If the lump sum is no more than $5,000, then the assumptions used to determine the lump sum are PBGC missing participant lump sum assumptions. This is a different amount from what the participant would have received under plan assumptions had the participant not been missing. The statement is false.

III. The transfer from the plan to the PBGC is considered an eligible rollover distribution under IRC section 402(c)(4), and therefore is not subject to the 20% withholding requirement of IRC section 3405(c)(1). See instructions to PBGC schedule MP. The statement is false.

Answer is A.

Question 7

The maximum benefit payable to Smith is determined using the rules of IRC section 415(b). Under IRC section 415(b), the single life annuity cannot exceed the smaller of the 415(b) dollar maximum or the 415(b) compensation maximum.

The dollar maximum for 2015 is equal to $210,000, reduced by 10% for each year of plan participation less than 10 years. Smith has 7 years of plan participation.

Pro-rated 415(b) dollar maximum = $210,000 × 7/10 = $147,000

In addition, the dollar maximum is adjusted from age 62 to Smith's early retirement age of 60 using the smaller of the factor based upon plan actuarial equivalence (the tabular early retirement reduction factors) or statutory equivalence (applicable mortality and 5%). The smaller of these factors is the one using statutory equivalence (a factor of 0.86). Note that the plan tabular reduction factor is 1.0, since there is no reduction in the accrued benefit due to early retirement.

415(b) dollar maximum = $147,000 × 0.86 = $126,420

The compensation maximum under 415(b) is equal to the high consecutive 3-year average salary, reduced by 10% for each year of service less than 10 years. Smith has 8 years of service with the employer. There is no additional adjustment to the compensation maximum for Smith's early retirement age of 60.

Smith's high consecutive 3 years of salary occurred in 2011 through 2013.

$$\text{High consecutive 3-year average salary} = \frac{\$155,000 + \$160,000 + \$165,000}{3} = \$160,000$$

Pro-rated for service less than 10 years = $160,000 × 8/10 = $128,000

The smaller of the dollar maximum and the compensation maximum is the dollar maximum of $126,420.

Answer is C.

Question 8

ERISA regulation 2550.404a-4(b) provides safe harbor rules for purposes of selection of an annuity provider with regard to fiduciary liability. A high rating is only one of the requirements to satisfy the safe harbor. For example, another requirement would be to consider the cost (including fees and commissions) of the annuity contract in relation to the benefits and administrative services to be provided under the contract.

The statement is false.

Answer is B.

Question 9

PBGC technical update 2012-1 states that the Alternative Premium Funding Target is determined without regard to the stabilization rules of MAP-21, so the stabilized segment rates are not used. The statement is false.

Answer is B.

Question 10

ERISA section 4010(b)(1) generally requires a filing to be made if the funding target attainment percentage (FTAP) is less than 80%. PBGC Technical Update 2012-2 indicates that the FTAP, used for this 80% Gateway Test, is determined without regard to the MAP-21 segment stabilization rates. With that modification, the ERISA 4010 FTAP is determined under the rules of IRC section 430.

The FTAP under IRC section 430(d)(2) is equal to:

$$\frac{\text{Actuarial Vaue of Assets - Funding balances}}{\text{Funding Target}}$$

This is: $\frac{AVA - 1{,}000{,}000}{155{,}000{,}000} = 80\% \rightarrow \qquad AVA = 125{,}000{,}000$

Note that the ERISA 4010 filing can also be avoided if the funding shortfall is no more than $15,000,000 (even if the above determined FTAP is less than 80%). For purposes of the funding shortfall, the MAP-21 stabilized rates are used for the funding target, and funding balances are not used to reduce the actuarial value of assets.

Funding shortfall = Funding target – Actuarial value of assets
= 142,000,000 – AVA = 15,000,000

In that case, AVA = 127,000,000

The question is asking for the <u>minimum</u> value of the assets in order to avoid an ERISA 4010 filing, so X = 125,000,000.

Answer is B.

Note that had there been a funding deficiency or late quarterly contribution of more than $1,000,000 and more than 10 days late, then a 4010 filing would have been required.

Question 11

When plans are aggregated for purposes of the coverage requirements of IRC section 410(b), non-excludable employees are determined based upon the most lenient eligibility requirements of the plans being aggregated (see Treasury regulation 1.410(b)-6(b)(2)). In this case, Plan A has no eligibility requirements, so that is used to determine non-excludable employees from the aggregated plan.

Employees are excludable if they are excluded for statutory reasons (minimum service up to one year, minimum age up to age 21). Since there are no statutory exclusions in the aggregated plans, all employees are deemed to be non-excludable (even though there are actually some employees excluded for age and service in plans B and C).

Total number of non-excludable employees = 60 + 35 + 50 + 3 + 7 = 155

Answer is E.

Question 12

ERISA section 3(21) provides the definition of a fiduciary. In order to be a fiduciary, the person or entity must have authority to manage the plan or the plan's assets, provide investment advice, or have authority over the plan administration.

In this question, the TPA has no such control or authority, but simply performs service to the plan based upon information provided by the plan sponsor. The TPA is not a fiduciary.

The statement is false.

Answer is B.

Question 13

A plan that benefits only NHCEs is deemed to be nondiscriminatory because the regulations under IRC section 401(a)(4) provide requirements to prevent discrimination against the NHCEs and in favor of the HCEs. With no HCEs ever participating in the plan, there is no one to discriminate in favor of. Nothing in the regulations prevents discrimination in favor of some NHCEs over other NHCEs.

The statement is true.

Answer is A.

Question 14

A partial withdrawal occurs if for three consecutive years, the contribution base units are less than 30% of the average of the highest two years of base units in the preceding 5 years (ERISA section 4205(b)(1)).

In the years 2008 through 2012, the highest two years of base units are 90,000 in 2009 and 75,000 in 2010. 30% of the average of those two years is:

30% × (90,000 + 75,000)/2 = 24,750

The contribution base units in each of 2013, 2014 and 2015 are less than 24,750, so a partial withdrawal occurs as of the last day of the 3-year period, which is December 31, 2015 (ERISA section 4205(a)(1)).

The partial withdrawal did not occur in 2013, so the statement is false.

Answer is B.

Question 15

The total PBGC premium under ERISA section 4006 consists of a flat-rate premium and a variable-rate premium. For 2015, the flat-rate premium is equal to $57 per participant. The participant count is based on the number of plan participants as of the last day of the prior plan year (12/31/2014). Participants include vested and non-vested active participants, retired participants, and beneficiaries and alternate payees of deceased participants. Non-participating employees are not included.

The plan has 15 vested active participants, 4 non-vested active participants, 4 retirees, and 1 alternate payee of a deceased participant, for a total of 24 participants to be counted for the flat-rate premium.

Flat-rate premium = 24 × $57 = $1,368

The PBGC variable-rate premium for 2015 is equal to 2.4% of the unfunded vested benefits. The vested standard premium funding target is used in this question, since the alternative premium funding target is not provided (use of the alternative premium funding target must be elected). Market value of assets is used for premium purposes.

2015 variable premium unfunded liability = \$540,000 – \$415,000 = \$125,000

2015 variable-rate premium = \$125,000 × 0.024 = \$3,000

In 2015, there is a variable premium cap of \$418 per plan participant.

Variable premium cap = \$418 × 24 participants = \$10,032

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 20 employees (the 15 vested active participants, the 4 non-vested active participants, and the 1 non-participating employee). So the small employer cap must be considered.

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

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 2015 variable rate premium is \$2,880.

Total 2015 PBGC premium = \$1,368 + \$2,880 = \$4,248

Answer is D.

Question 16

The mandatory contributions are accumulated using 120% of the applicable Federal mid-term rate through 1/1/2014. The mandatory contributions each year are:

2011: 5% × $30,000 = $1,500
2012: 5% × $35,000 = $1,750
2013: 5% × $40,000 = $2,000

The contributions are made at the end of each year, so the accumulation is based upon the 120% of the applicable Federal mid-term rates effective beginning the following year. The accumulated value as of 1/1/2014 is:

(1,500 × 1.014 × 1.0104) + (1,750 × 1.0104) + 2,000 = 5,305

The accrued benefit attributable to the mandatory contributions is equal to the actuarial equivalent of the account balance at Smith's normal retirement date, using IRC section 417(e) actuarial equivalence (the applicable interest rate and the applicable mortality table). Smith is age 65 on 1/1/2014, so the accumulated value of the mandatory contributions on 1/1/2014 can be divided by the life annuity value given as of 1/1/2014. The equivalent monthly annuity is:

5,305 ÷ (12.14 × 12) = 36.42

See IRC sections 411(c)(2)(B) and (C).

Answer is C.

Question 17

Smith has 17 years of service as of the 1/1/2015 valuation date. The accrued benefit as of 1/1/2015 under the terms of the plan is:

$$\text{Plan accrued benefit} = 1\% \times \frac{65{,}000 + 70{,}000 + 75{,}000}{3} \times 17 \text{ years of service} = 11{,}900$$

The top heavy minimum benefit under IRC section 416(c)(1) is equal to 2% of the high consecutive 5-year average salary, multiplied by years of plan participation while the plan has been top heavy with a maximum of 10 years. The plan has been top heavy since 2003, so Smith has earned the maximum 10 years.

Top-heavy minimum benefit

$$= 2\% \times \frac{55{,}000 + 60{,}000 + 65{,}000 + 70{,}000 + 75{,}000}{5} \times 10 \text{ years} = 13{,}000$$

The overall accrued benefit is equal to the greater of the plan accrued benefit or the top heavy minimum benefit. This is 13,000.

Answer is B.

Question 18

The commencement of bankruptcy proceedings by a member of a controlled group is a reportable event under ERISA regulation 4043.35. The notice requirement is waived if the entity declaring bankruptcy is a foreign entity (other than a foreign parent). All members of the controlled group in this case are U.S. entities, so there is no waiver. A PBGC Form 10 filing must be made.

The statement is true.

Answer is A.

Question 19

Plan I **could** be a safe harbor plan because it is a flat benefit formula requiring at least 25 years of benefit service, and is accrued using the fractional rule of IRC section 411(b)(1)(C). See Treasury regulation 1.401(a)(4)-3(b)(4)(C)(2).

Plan II **could not** be a safe harbor formula because it is a unit benefit formula that does not satisfy the 133⅓% rule of IRC section 411(b)(1)(B). The 133⅓% rule requires that no participant accrue a benefit more than 133⅓% of any prior year accrual. In this plan, the accrual rate in the early years is 1.4%, and in the later years is 2.0%. This later accrual rate is 143% of the early year accrual rate. See Treasury regulation 1.401(a)(4)-3(b)(3)(A).

Plan III **could not** be a safe harbor formula because it does not provide for a uniform normal retirement age, as defined in Treasury regulation 1.401(a)(4)-12. In order for the normal retirement age to be uniform, there must be a single retirement age (other than differing retirement ages due to a service or participation requirement). Under this plan, some employees could have an age 62 retirement age, while others can have an age 65 retirement age.

Answer is A.

Question 20

A fiduciary is a disqualified person under IRC section 4975(e)(2)(A).

A 51% owner (either direct or indirect) is a disqualified person due to owning more than 50% under IRC section 4975(e)(2)(E).

A person providing services to a plan is a disqualified person under IRC section 4975(e)(2)(B).

A father of a person providing services to a plan is a disqualified person under IRC section 4975(e)(2)(F).

All four are disqualified persons.

Answer is E.

Question 21

Under the presumptive method, the unfunded vested benefits must be determined for each year from 1979 and later, with a share assigned to Employer A. In this case, the first year that there are unfunded vested benefits is 2012 (it is given that there were no unfunded vested benefits prior to 2012). The unfunded vested benefits as of 12/31/2012 are multiplied by the ratio of the contributions by Employer A over the 5-year period ending on 12/31/2012 to the contributions for the same period by all employers (not including contributions for any previously withdrawn employers). This is the unfunded vested liability attributable to Employer A:

$$\$50{,}000{,}000 \times \frac{1{,}000{,}000}{13{,}000{,}000} = \$3{,}846{,}154$$

Since Employer A withdrew in 2015, the withdrawal liability is determined as of 12/31/2014 (the last day of the year prior to the complete withdrawal). The share of unfunded vested benefits allocated to Employer A as of 12/31/2012 must be adjusted to an outstanding balance as of 12/31/2014. Under the presumptive method, it is assumed that the liability is paid off at the rate of 5% per year, leaving 90% of the 12/31/2012 unfunded vested liability remaining as of 12/31/2014. So, the outstanding balance on 12/31/2014 is:

$3,846,154 × 90% = $3,461,539

Next, the gain or loss in the total unfunded vested benefits must be determined as of 12/31/2013.

The expected unfunded vested benefits as of 12/31/2013 (assuming a 5% per year reduction) are:

$50,000,000 × 95% = $47,500,000

The actual unfunded vested benefits is $75,000,000

The 2013 loss in the unfunded vested benefits is:

$75,000,000 - $47,500,000 = $27,500,000

The reallocated liability pool from previously withdrawn employers must be added back into the loss of unfunded vested benefits.

Adjusted 2013 loss = $27,500,000 + $1,000,000 = $28,500,000

The adjusted 2013 loss must be allocated to Employer A. The loss in the unfunded vested benefits is multiplied by the ratio of the contributions by Employer A over the 5-year period ending on 12/31/2013 to the contributions for the same period by all employers (not including contributions for any previously withdrawn employers).

$$\$28,500,000 \times \frac{1,100,000}{14,000,000} = \$2,239,286$$

This share of unfunded vested benefits allocated to Employer A as of 12/31/2013 must be adjusted to an outstanding balance as of 12/31/2014 (using the 5% reduction rule). The outstanding balance of this on 12/31/2014 is:

$2,239,286 × 95% = $2,127,322

Finally, the gain or loss in the total unfunded vested benefits must be determined as of 12/31/2014.

The expected unfunded vested benefits (using the 5% reduction rule) are:

$$[\$50{,}000{,}000 \times 90\%] + [(\$27{,}500{,}000) \times 95\%] = \$71{,}125{,}000$$

Note that the reallocated liability pool is not used to determine the expected unfunded vested benefits – this is based upon the actual unfunded vested benefits, including gains and losses, from each past year.

The actual unfunded vested benefits is $60,000,000

The 2014 gain in the unfunded vested benefits is:

$60,000,000 - $71,125,000 = ($11,125,000)

The reallocated liability pool from previously withdrawn employers must be added back into the gain of unfunded vested benefits (reducing the gain).

Adjusted 2014 gain = ($11,125,000) + $500,000 = ($10,625,000)

The adjusted 2014 gain must be allocated to Employer A. The gain in the unfunded vested benefits is multiplied by the ratio of the contributions by Employer A over the 5-year period ending on 12/31/2014 to the contributions for the same period by all employers (not including contributions for any previously withdrawn employers).

$$(\$10{,}625{,}000) \times \frac{1{,}200{,}000}{15{,}000{,}000} = (\$850{,}000)$$

The total share of unfunded vested benefits allocated to Employer A is:

$3,461,539 + $2,127,322 – $850,000 = $4,738,861

This is the complete withdrawal liability since the mandatory de minimis credit must be fully phased out once the share of unfunded vested benefits exceeds $150,000.

Answer is D.

Question 22

This is a poorly worded question. It is asking for the ratio percentage for the rate group determined by the HCE with the information listed in group 3, imputing disparity to determine the accrual rates. The fact that it is given that the permitted disparity factor of 0.65% is used for all participants implies that disparity is to be imputed.

Each HCE determines a rate group under the general test of Treasury regulation 1.401(a)(4)-3(c). The rate group includes the HCE (in this case, the HCE in group 3) and all other participants with both a normal and most valuable accrual rate at least as large as that of the HCE in group 3. Note that it is given that the normal and most valuable accrual rates are the same for all participants. The ratio percentage is equal to the ratio of the percentage of NHCEs who are non-excludable employees and are benefiting in the rate group to the percentage of HCEs who are non-excludable employees and are benefiting in the rate group. Since no employees are mentioned in the question other than the participants listed, it can be assumed that there are no non-excludable employees. For purposes of the ratio percentage for this rate group, only the participants in the rate group are benefiting.

There are a total of 8 non-excludable HCEs in the plan (the sum of the HCEs in groups 1, 2 and 3. There are a total of 60 non-excludable NHCEs in the plan (the sum of the NHCEs in groups 4, 5, 6, and 7).

Permitted disparity can optionally be imputed for purposes of determining the accrual rates under Treasury regulation 1.401(a)(4)-7(c). For employees with compensation no larger than covered compensation, disparity is imputed under Treasury regulation 1.401(a)(4)-7(c)(2) as the smaller of two results:

(1) Twice the unadjusted accrual rate, or
(2) The unadjusted accrual rate plus the permitted disparity rate

All of the NHCEs have compensation less than their covered compensation. Clearly, for a participant with an unadjusted accrual rate that is at least 0.65%, the smaller of the two results would be the unadjusted accrual rate plus 0.65%. This is the case for each NHCE.

The imputed accrual rate for each of the NHCE groups is:

NHCE group 4: 3.00% + 0.65% = 3.65%
NHCE group 5: 2.20% + 0.65% = 2.85%
NHCE group 6: 1.80% + 0.65% = 2.45%
NHCE group 7: 1.00% + 0.65% = 1.65%

Treasury regulation 1.401(a)(4)-7(c)(3) states that for employees whose compensation exceeds covered compensation, the imputed accrual rate is the smaller of:

$$\frac{\text{accrual}}{\text{testing compensation - 1/2 covered compensation}}, \text{ or}$$

$$\frac{\text{accrual} + (\text{permitted disparity factor} \times \text{covered compensation})}{\text{testing compensation}}$$

The imputed accrual rate must be determined for each HCE group. Note that testing compensation must be assumed to be current compensation (allowed since the measurement period is the current year). Current compensation cannot exceed the 2015 IRC section 401(a)(17) limit of $265,000.

HCE group 1:

Imputed accrual rate is smaller of:

$$\frac{5{,}625}{225{,}000 - (.5 \times 75{,}000)} = 3.00\%, \text{ or}$$

$$\frac{5{,}625 + (.0065 \times 75{,}000)}{225{,}000} = 2.72\%$$

The smaller is 2.72%.

HCE group 2:

Imputed accrual rate is smaller of:

$$\frac{4{,}950}{225{,}000 - (.5 \times 90{,}000)} = 2.75\%, \text{ or}$$

$$\frac{4{,}950 + (.0065 \times 90{,}000)}{225{,}000} = 2.46\%$$

The smaller is 2.46%.

HCE group 3:

Imputed accrual rate is smaller of:

$$\frac{6{,}000}{255{,}000-(.5\times 105{,}000)} = 2.96\%, \text{ or}$$

$$\frac{6{,}000+(.0065\times 105{,}000)}{255{,}000} = 2.62\%$$

The smaller is 2.62%.

The rate group determined by group 3 includes participants with an accrual rate of at least 2.62%. This includes the 5 HCEs in group 1, the HCE in group 3, the 10 NHCEs in group 4 and the 10 NHCEs in group 5. There are 6 (out of 8) HCEs in the rate group, and 20 (out of 60) NHCEs in the rate group.

The ratio percentage for the rate group determined by the HCE in group 3 is:

$$\frac{20/60}{6/8} = 44.44\%$$

Answer is C.

Question 23

IRC section 411(a)(4)(A) allows for service prior to the attainment of age 18 to be ignored for purposes of vesting. Smith turned 18 on 1/1/2003, so years of service before that date can be ignored.

Beginning in 2005, Smith worked 450 hours for 5 consecutive years (2005 through 2009). Smith incurs a break in service for each of those years due to having completed no more than 500 hours of service each year (IRC section 411(a)(6)(A)). Nonvested participants with at least 5 consecutive years of breaks in service can have all years of service prior to the break in service years ignored for purposes of vesting (IRC section 411(a)(6)(D)).

Under the minimum vesting schedules of IRC section 411(a)(2)(A), a participant with only 2 years of service is always non-vested. Therefore, all years of service for Smith prior to 2010 can be ignored for purposes of vesting.

IRC section 411(a)(5)(A) allows that years of service can be granted only if a participant works at least 1,000 hours during the year. After 2009, Smith has 5 years of vesting service (only in the years 2010 – 2014 did Smith work at least 1,000 hours). If the 5-year vesting schedule of IRC section 411(a)(2)(A)(ii) is used, Smith would be 100% vested after 5 years of service. If the 3 to 7 year vesting schedule of IRC section 411(a)(2)(A)(iii) is used, Smith would be 60% vested after 5 years of service. Therefore, Smith would have the smallest allowable vested percentage if the 3 to 7 year schedule is used, making Smith's vested percentage 60% as of 12/31/2015.

For purposes of the accrued benefit definition in the question, all years of service during which Smith worked at least 1,000 hours are used to determine the accrued benefit. Smith worked 1,000 hours in 7 years (2003, 2004, and 2010 – 2014). Note that years prior to 2003, when Smith first became a plan participant, are ignored according to the terms of the plan.

12/31/2015 monthly accrued benefit = \$50 × 7 years of service = \$350

12/31/2015 vested monthly accrued benefit = \$350 × 60% = \$210

Answer is B.

Note that, as in this question, years of service used for vesting purposes can be different from the years of service used for the accrued benefit calculation.

Question 24

In a situation where a plan sponsor files for bankruptcy, the plan termination date in a distress termination is deemed to be the bankruptcy filing date for purposes of determining guaranteed benefits (ERISA section 4022(g)). So, the plan termination date in this question is deemed to be 12/31/2012.

Accrued vested benefits as of the plan termination date are guaranteed, subject to phase-in and maximum guaranteeable benefit rules under ERISA section 4022. There is no mention of the plan ever being amended, so, subject to the PBGC maximum guaranteeable benefit, the vested accrued benefit for Smith as of 12/31/2012 is fully guaranteed.

Smith has 18 years of service as of 12/31/2012, and must be fully vested under any allowable vesting schedule of IRC section 411(a)(2). The vested monthly accrued benefit as of 12/31/2012 for Smith is:

$$3.5\% \times \frac{115{,}000 + 115{,}000 + 110{,}000}{36 \text{ months}} \times 18 \text{ years of service} = 5{,}950$$

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 (4,653.41 per month for 2012)

The high consecutive 5-year average monthly salary as of 12/31/2012 is:

$$\frac{115{,}000 + 115{,}000 + 110{,}000 + 110{,}000 + 110{,}000}{60 \text{ months}} = 9{,}333.33$$

Clearly, the PBGC dollar maximum of 4,653.41 is smaller.

The vested accrued benefit of 5,950 is limited to the PBGC maximum of 4,653.41. That is the guaranteed monthly benefit for Smith.

Answer is C.

Question 25

I. When more than one joint and survivor annuity is offered by a plan, the QJSA must be the most valuable option available, which is not necessarily the one with the largest survivor percentage. See Treasury regulation 1.401(a)-20, Q&A 16. The statement is false.

II. If the qualified optional survivor annuity (QOSA) is actuarially equivalent to the QJSA, no spousal consent is required in order for the participant to elect the QOSA. See Treasury regulation 1.401(a)-20, Q&A 16. The statement is true.

III. IRC section 417(g)(2)(A) states that if the QJSA percentage is less than 75%, then the QOSA percentage must be 75%. In this statement, the QJSA percentage of 66⅔% is less than 75%, so the QOSA percentage must be 75%. The statement is false.

Answer is C.

Question 26

I. IRC section 4980F(f)(2)(A) states that the ERISA 204(h) notice requirement applies to all qualified defined benefit plans. There is no restriction based upon the number of participants (although the due date for providing the notice is different when the plan has fewer than 100 participants). The statement is false.

II. Treasury regulation 54.4980F-1, Q&A 9, states that in general, the ERISA 204(h) notice must be provided at least 45 days before the effective date of an amendment reducing future benefit accruals. This is reduced to 15 days only for small plans, with fewer than 100 participants, not for plans with more than 100 participants. The statement is false.

III. Treasury regulation 54.4980F-1, Q&A 3 provides a definition of plans to which the ERISA 204(h) notice applies. Collectively bargained plans are not excluded from this definition, so the notice is required. The statement is false.

Answer is A.

Question 27

I. ERISA regulation 901.20(j) requires an enrolled actuary to return to a client, upon the client's request, all records that the client provided, even in the event of a fee dispute. The statement is false.

II. There is no requirement under ERISA regulation 901.20(j) to return to a client the enrolled actuary's work papers and results of any study performed, in the event of a fee dispute. The statement is true.

III. Records of the client, under ERISA regulation 901.20(j), include records provided by representatives of the client, such as the client's attorney. As a result, the enrolled actuary cannot withhold these records, even in the event of a fee dispute. The statement is false.

Answer is B.

Question 28

Smith has 9 years of service as of 12/31/2015. Smith has earned $260,000 per year for each year of service. However, for purposes of determining benefits, this must be limited to the IRC section 401(a)(17) compensation limit. That limit was $245,000 in 2011, $250,000 in 2012, $255,000 in 2013 and $260,000 in 2014. Smith's compensation is less than the 2015 limit of $265,000. The plan benefit that Smith has earned as of 12/31/2015 is:

$$7.5\% \times \frac{\$245{,}000 + \$250{,}000 + \$255{,}000 + \$260{,}000 + \$260{,}000}{5}$$
$$\times 9 \text{ years of service} = \$171{,}450$$

This 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). The compensation limit must be prorated for Smith's 9 years of service.

IRC section 415(b) compensation limit

$$= \frac{\$255{,}000 + \$260{,}000 + \$260{,}000}{3} \times (9/10) = \$232{,}500$$

The IRC section 415(b) dollar limit in effect for 2015 is $210,000. This must be reduced pro-rata for years of plan participation less than 10. Smith entered the plan on 1/1/2008, and has only 8 years of plan participation.

Pro-rated dollar limit = $210,000 × (8/10) = $168,000

The dollar limit is further reduced for retirement prior to age 62. Smith retires at age 60 (normal retirement age in this plan) The reduced dollar limit is the smaller of the limit reduced using plan equivalence (in this case, using 8% interest and the applicable mortality table) or the limit reduced using actuarial equivalence based upon 5% interest and the applicable mortality table.

In applying a reduction from age 62 to age 60, the discount is on an interest only basis because there is a pre-retirement death benefit (the present value of accrued benefits).

Reduced dollar limit using plan equivalence (8% interest and applicable mortality table):

$$\$168{,}000 \times \ddot{a}^{(12)}_{62@8\%} \times v^{2}_{8\%} \div \ddot{a}^{(12)}_{60@8\%} = \$168{,}000 \times 10.50 \times 0.857339 \div 10.84$$
$$= \$139{,}515$$

Reduced dollar limit using 5% interest and applicable mortality table:

$$\$168{,}000 \times \ddot{a}^{(12)}_{62@5\%} \times v^{2}_{5\%} \div \ddot{a}^{(12)}_{60@5\%} = \$168{,}000 \times 12.98 \times 0.907029 \div 13.56$$
$$= \$145{,}863$$

The smaller of the two reduced dollar limits is $139,515. This is the IRC section 415(b) dollar limit. It is also the overall IRC section 415(b) limit because it is smaller than the compensation limit. (Note that the IRC section 415(b) compensation limit is not adjusted for retirement age.

The plan benefit must be limited to $139,515.

Answer is A.

Note: The initial Joint Board solution to this question indicated answer choice B to be the correct solution. Credit is also given for choice A, which is the truly correct answer as described above. The incorrect choice B was also allowed, although it assumes that participants are given suspension of benefits notices if they delay their retirement past normal retirement age 60.

The importance of the suspension of benefits notice is that it allows the plan to ignore actuarial increases in the accrued benefit after normal retirement age 60. That would actually make the plan equivalence factor from age 60 to 62 equal to 1.0 since the benefit does not increase past age 60. The dollar limit would then only be reduced using the statutory 5% interest and applicable mortality table – the plan equivalence between ages 60 and 62 is simply 1.0.

If a suspension of benefits notice had been provided, then the correct answer to this question would have been $145,863 (answer choice B). There was no mention of suspension of benefits notices being provided in the question, and there is no general condition stating that they are provided – so it is incorrect to make that assumption.

Question 29

ERISA regulation 4041A.11(c)(2) states that when a multiemployer plan terminates due to a mass withdrawal, a Notice of Termination must be filed with the PBGC within 30 days after the last employer has withdrawn, or within 30 days of the first day of the first plan year for which no employer contributions are required, whichever occurs first. There is no 15 day filing requirement. The statement is false.

Answer is B.

Question 30

IRC section 401(a)(9)(C) states that the required beginning date for a plan participant is generally April 1 of the calendar year following the later of:

(1) The calendar year in which the employee attains age 70½, or
(2) The calendar year in which the employee retires

The only exception is for a 5% owner, who must begin taking minimum required distributions beginning on the April 1 following the calendar year in which the owner attains age 70½, even if still employed.

In this case, Smith is not a 5% owner. Smith terminates during calendar year 2015 at age 71, so Smith must begin receiving benefits by April 1, 2016.

The statement is true.

Answer is A.

Question 31

ERISA regulation 4041.22 describes rules dealing with the administration of a plan during the standard termination process. The regulation section indicates that the plan can make payments to any participant who has separated from employment or is otherwise eligible to receive a distribution, provided the distribution is not reasonably expected to jeopardize the plan's sufficiency. The statement is false.

Answer is B.

Question 32

Current availability is described in Treasury regulation 1.401(a)(4)-4(b). The determination of current availability is based upon current facts and circumstances with respect to the employee (such as compensation paid, job status, accrued benefit, and net worth). Current age and service are disregarded in the determination of current availability.

The current HCE and NHCE status of each employee must be taken into account for purposes of current availability.

A ratio percentage (as might be used for IRC section 410(b)) is determined for the particular benefit, right or feature being considered (in this case, the insured death benefit). 8 out of the 11 NHCEs are eligible for the death benefit because they are salaried, and 3 out of the 3 HCEs are also eligible for the death benefit. The ratio percentage must be at least 70% in order to satisfy current availability under the benefits, rights and features requirement.

The ratio percentage under IRC section 410(b) and as defined in Treasury regulation 1.410(b)-9 is equal to the following ratio:

$$\frac{\frac{\#\text{ of NHCEs benefiting}}{\#\text{ of NHCEs nonexcludable}}}{\frac{\#\text{ of HCEs benefiting}}{\#\text{ of HCEs nonexcludable}}}$$

Ratio percentage for death benefit = $\frac{8/11}{3/3} = 0.7273$, or 72.73%

The ratio percentage is at least 70%, so the insured death benefit feature satisfies current availability of the benefits, rights and features requirement.

The statement is true.

Answer is A.

Question 33

ERISA regulation 901.20(k) provides that when an enrolled actuary discovers the non-filing of a document signed by the actuary, the actuary must provide written notification to the government agency where the document should have been filed. In this case that would be the PBGC. There is no requirement, however, to notify the plan administrator of the non-filing. The statement is false

Answer is B.

Question 34

Accelerated benefit distributions, such as a lump sum (other than a forced lump sum payout of no more than $5,000), are limited if the AFTAP is less than 80% (see IRC section 436(d)).

The 2014 AFTAP was certified on 11/1/2014 to be 85%. However, Treasury regulation 1.436-1(h)(3) states that if the AFTAP has not been certified by the first day of the 10th month of the plan year (October 1 for a calendar year plan), then the AFTAP is presumed to be less than 60% for the remainder of the year. In addition, the subsequent AFTAP certification of 85% on 11/1/2014 does not change the presumption of less than 60% for the remainder of the plan year, so the plan cannot make a lump sum (or partial lump sum) distribution until 1/1/2015, when the 2014 AFTAP becomes the presumed AFTAP. See example 3 of Treasury regulation 1.436-1(h)(5).

The statement is false.

Answer is B.

Question 35

IRC section 436(d)(5) provides that for plans subject to the limitation on accelerated benefit distributions, the purchase of an annuity from an insurer would be a limited distribution. However, IRC section 436(d)(4) provides an exception where if the plan has been frozen since September 1, 2005 or earlier, the restrictions on accelerated distributions do not apply. The annuities may be purchased regardless of the AFTAP percentage. The statement is true.

Answer is A.

Question 36

In correcting a prohibited transaction, the plan fiduciaries must make certain that the correction does not cause the plan to be in a worse financial condition than it would be if the highest fiduciary standards had been followed. The statement is therefore false.

Answer is B.

Note: See Treasury regulation 141.4975-13, which cross-references the rules for private foundations found in regulation 53.4941(e)-1.

Question 37

The Schedule SB is part of the 5500 form series, which was developed by the Internal Revenue Service, the Department of Labor, and the PBGC as a joint filing.

ERISA regulation 901.20(k) provides that when an enrolled actuary discovers the non-filing of a document signed by the actuary, the actuary must provide written notification to the government agency where the document should have been filed. In this case that would be the Internal Revenue Service, the Department of Labor, and the PBGC.

The statement is false.

Answer is B.

Question 38

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 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 6/30/2015 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.

$$2015\ \text{AFTAP} = \frac{1{,}850{,}000 - 100{,}000 + (50{,}000 + 40{,}000)}{2{,}000{,}000 + (50{,}000 + 40{,}000)} = 88.04\%$$

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

$$\frac{1{,}850{,}000 - 100{,}000 + (50{,}000 + 40{,}000)}{2{,}000{,}000 + (50{,}000 + 40{,}000) + 500{,}000} = 71.04\%$$

In order to increase this ratio to 80%, a contribution of $X is deposited on 6/30/2015, and is interest adjusted using the plan effective rate of 6% for 6 months to the 1/1/2015 valuation date.

$$\frac{1{,}850{,}000 - 100{,}000 + (50{,}000 + 40{,}000) + (X / 1.06^{6/12})}{2{,}000{,}000 + (50{,}000 + 40{,}000) + 500{,}000} = 80.00\% \quad \rightarrow \quad X = 238{,}859$$

Answer is E.

Question 39

The excise tax upon reversion of assets to the employer after a plan termination under IRC section 4980 is equal to 50% of the amount of the reversion, unless the plan satisfies either of the requirements under IRC sections 4980(d)(2) or 4980(d)(3). Those requirements are:

(1) Transfer at least 25% of the assets eligible for reversion to a Qualified Replacement Plan, or
(2) Increase benefits to the participants pro-rata in an amount equal to at least 20% of the assets eligible for reversion.

If either requirement is satisfied, then the excise tax is reduced to 20% of the amount of the reversion.

The Qualified Replacement Plan option can also be satisfied by amending the plan to increase benefits to participants in addition to a transfer of assets to the qualified replacement plan, such that the sum of the increase of benefits from the amendment and the transfer to the qualified replacement plan is at least 25% of the assets eligible for reversion.

In this question, the amount of assets available for reversion before the plan amendment is taken into account is:

$3,300,000 – $1,500,000 = $1,800,000

25% of assets available for reversion = 25% × $1,800,000 = $450,000

The amount that must be transferred (at a minimum) to the Qualified Replacement Plan is equal to $450,000 reduced by the amount of additional benefits provided by the plan amendment ($225,000).

Minimum to transfer to Qualified Replacement Plan = $450,000 - $225,000 = $225,000

The $215,000 excise tax was paid at a rate of 20% of the employer reversion.

Employer reversion = $215,000 ÷ 20% = $1,075,000

The actual transfer to the Qualified Replacement Plan is equal to the excess assets (before the plan amendment) less the employer reversion less the additional benefits provided by the amendment.

Transfer to Qualified Replacement Plan = $1,800,000 - $1,075,000 - $225,000 = $500,000

Answer is B.

Question 40

IRC section 415(b)(4) provides that for participants with at least 10 years of service, the IRC section 415(b) maximum annual benefit cannot be less than $10,000 per year. Smith's benefit of $8,000 does not violate the provisions of IRC section 415(b)(4), and can therefore be paid.

The statement is true.

Answer is A.

Note: IRC section 415(b)(4) also requires that the participant has never participated in a defined contribution plan of the same employer. The exam general conditions state that unless it is specifically stated in the question, the employer has never sponsored another plan. Therefore, Smith has not participated in a defined contribution plan of the employer.

Question 41

A measurement period of the current plan year used to determine the most valuable accrual rate requires the use of the current year accrual for the defined benefit plan. That is $3,000 ($32,000 – $29,000).

The most valuable benefit is deemed to be the qualified joint and survivor annuity (Treasury regulation 1.401(a)(4)-3(d)(1)(ii)). The qualified joint and survivor annuity (QJSA) must then be normalized using testing assumptions to a life annuity.

Early retirement benefits can be paid at age 62 or later (Smith has 25 years of service), with a reduction based upon the given early retirement factors. Each possible early retirement benefit must be considered, and normalized (using the 8% testing interest rate) to a life annuity at age 65 in order to determine the most valuable accrual from the defined benefit plan. At each age, the $3,000 annual accrual is adjusted by plan actuarial equivalence to convert it to a QJSA benefit at the early retirement age, and by the appropriate reduction for the early retirement age.

At age 62, the benefit payable as a QJSA is $2,041.63 ($3,000 × (10.00/12.49 × 0.85)).
At age 63, the benefit payable as a QJSA is $2,167.48 ($3,000 × (9.85/12.27 × 0.90)).
At age 64, the benefit payable as a QJSA is $2,272.43 ($3,000 × (9.60/12.04 × 0.95)).
At age 65, the benefit payable as a QJSA is $2,377.12 ($3,000 × (9.35/11.80)).

Each of these benefits must be normalized by multiplying by the QJSA annuity value at the actual retirement age, accumulating the result to age 65 at 8% interest, and dividing by the life annuity factor at age 65. The benefit at the actual retirement age multiplied by the normalization factor is equal to the normalized benefit.

RA	Benefit	Normalization factor	Normalized benefit
62	$2,041.63	$11.45 \times 1.08^3 \div 9.58 = 1.505606$	$3,073.89
63	$2,167.48	$11.33 \times 1.08^2 \div 9.58 = 1.379689$	$2,989.97
64	$2,272.43	$11.21 \times 1.08 \div 9.58 = 1.263758$	$2,871.80
65	$2,377.12	$11.08 \div 9.58 = 1.156576$	$2,749.32

The largest normalized benefit is $3,073.89, so that is the most valuable accrual.

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

$$\text{Most valuable accrual rate} = \frac{\$3,073.89}{\$80,000} = 0.0384, \text{ or } 3.84\%$$

Answer is C.

Question 42

The top heavy ratio is based upon the valuation results for the valuation date during the 12-month period ending on the determination date. The determination date is the last day of the prior year. For the defined contribution plan calendar year beginning 1/1/2015, the determination date is 12/31/2014. The valuation date for that year is 12/31/2014. Therefore, the 12/31/2014 valuation results are used for the defined contribution plan for purposes of the top heavy ratio.

The defined benefit plan is not a calendar year plan, as it begins on 10/1 and ends on 9/30 each year. Each 9/30 is a determination date for the defined benefit plan, and the determination date that falls within the same calendar year as the determination date for the defined contribution plan is 9/30/2014. The valuation date for the defined benefit plan is 10/1/2013 for the plan year ending 9/30/2014. Therefore, the 10/1/2013 valuation results are used for the defined benefit plan for purposes of the top heavy ratio.

Treasury regulation 1.416-1, Q&A T-23 describes the determination of the top heavy ratio when plans are aggregated with different plan years.

The top heavy ratio is equal to the present value of the accrued benefits for key employees (account balances from the defined contribution plan) divided by the present value of accrued benefits for all employees.

$$\text{Top heavy ratio} = \frac{130{,}000 + 200{,}000}{130{,}000 + 200{,}000 + 60{,}000 + 100{,}000}$$

$$= 67.35\%$$

Answer is C.

Question 43

Smith has 6 years of service as of 12/31/2014. The accrued benefit as of 12/31/2014 under the terms of the plan is:

$$\text{Plan accrued benefit} = 1.5\% \times \frac{100{,}000 + 95{,}000 + 85{,}000}{3} \times 6 \text{ years of service} = 8{,}400$$

The top heavy minimum benefit under IRC section 416(c)(1) is equal to 2% of the high consecutive 5-year average salary, multiplied by years of plan participation while the plan has been top heavy with a maximum of 10 years. The plan was top heavy from 2009 through 2013, so Smith has earned 5 years of top heavy service. The plan is not currently top heavy, so compensation paid since the last top heavy year of 2013 is ignored for purposes of the 5-year average salary (see IRC section 416(c)(1)(D)(iii)(II)).

Top-heavy minimum benefit

$$= 2\% \times \frac{95{,}000 + 85{,}000 + 95{,}000 + 85{,}000 + 80{,}000}{5} \times 5 \text{ years} = 8{,}800$$

The overall accrued benefit is equal to the greater of the plan accrued benefit or the top heavy minimum benefit. This is 8,800.

Answer is B.

Question 44

The top heavy ratio is equal to the present value of the accrued benefits for key employees divided by the present value of accrued benefits for all employees. The top heavy ratio is determined based upon the determination date (the last day of the prior year). For 2015, the top heavy ratio is based upon the valuation results from the 2014 year.

$$\text{Top heavy ratio} = \frac{615{,}000}{1{,}005{,}000} = 61.19\%$$

When the top heavy ratio exceeds 60%, the plan is top heavy (see IRC section 416(g)(1)(A)). The plan is top heavy for the 2015 plan year. The statement is true.

Answer is A.

Question 45

Plans that are exempt from a PBGC variable-rate premium do not need an actuary to certify the PBGC premium filing. The statement is true.

Answer is A.

Question 46

IRC section 4974(a) requires the payment of a 50% excise tax for any year in which the minimum required distribution is not paid, to the extent the distribution was not paid.

Excise tax for 2013 = (30,000 – 15,000) × 50% = 7,500
Excise tax for 2014 = (35,000 – 20,000) × 50% = 7,500
Excise tax for 2015 = (40,000 – 20,000) × 50% = 10,000

Total excise tax = 7,500 + 7,500 + 10,000 = 25,000

Answer is C.

Question 47

I. ERISA regulation 901.31(c) states that an enrolled actuary convicted of fraud could have their enrollment terminated. The fraud does not necessarily need to be related to their work in the actuarial field. The statement is true.

II. ERISA regulation 901.20(c) requires an enrolled actuary to provide upon appropriate request any supplemental explanation with regard to any report certified by the enrolled actuary. ERISA regulation 901.31(b) states that failure to discharge duties under the standards of performance rules of ERISA regulation 901.20 can result in suspension. Failure to provide the calculation of the minimum required contribution could result in a suspension of the enrolled actuary. The statement is true.

III. ERISA regulation 901.20(j)(1) requires an enrolled actuary to return to the client all records necessary for the client to comply with their legal obligations. Electronic correspondence between the actuary and the client's representatives is not needed for the client to comply with their legal obligations, so the failure to provide that correspondence could not result in the enrollment of the actuary to be terminated. The statement is false.

Answer is A.