Summary of Practice Problems - 2018

	Cost methods practice problems
1	Individual level Premium - pay history
2	Individual Aggregate method / Aggregate cost method
3	Aggregate method - with side fund
4	Aggregate method - gain and loss analysis
5	Gain and loss analysis - proof
6	Entry Age Normal - multiple retirement decrements
7	Individual level Premium – with side fund (1986 #13)
8	Unit Credit – withdrawal decrements – EOY
9	Entry Age Normal – withdrawal decrements – EOY
10	Unit Credit – withdrawal decrements – BOY
11	Entry Age Normal – withdrawal decrements – BOY
	Cost methods practice problems - Added for PPA 2006
12	Projected Unit Credit calculations - Multiemployer plan
13	Projected Unit Credit calculations - Single Employer plan
14	Unit Credit – withdrawal decrements – Multiemployer plan
15	Aggregate method – withdrawal decrements – Multiemployer plan
16	Unit Credit – withdrawal decrements – Multiemployer plan

	HISTORICAL Cost methods practice problems
1	Unit credit - essay question
2	Entry Age Normal - essay question
3	Unit credit - mandatory employee contributions - 1984 #04
4	Projected Unit credit - 1988 #19
5	Frozen Initial liability - end of year valuations - 1984 #18
6	Frozen Initial liability - end of year valuations - 1987 #19
7	Aggregate Entry Age Normal - 1988 #13
8	Dollar weighted return - 1987 #14

	Overheads	404(a) practice problems - Multiemployer maximum funding
1	N/A	Minimum and maximum, modified EA-2A question 2003-19
2	404-ME-10	Modified EA-2A question 2003-19 (shift effective date to 2008)
3	N/A	Five steps for deductible limit, modified EA-2A question 2003-30
4	N/A	Minimum and maximum, modified EA-2A question 2004-21
5	404-ME-10	Modified EA-2A question 2004-21 (shift effective date to 2011)
6	404REG-28	Modified EA-2A question 2003-18 (shift effective date to 2008)
7	404REG-28	Modified EA-2A question 2003-43 (shift effective date to 2010)
8	404REG-28	Modified EA-2A question 2003-43 (shift effective date to 2010)
9	N/A	Deductible limit calculation - "five steps"
10	N/A	Modified EA-2A question 2004-24
11	N/A	Deductible limit calculation - "five steps" and funding waiver
12	N/A	Write down 404 amortization bases
13	N/A	Deductible limit calculation - "five steps" and non-deductible contribution
14	404-ME-10	Modified EA-2A question 2003-30 (shift effective date to 2008)
15	N/A	Modified EA-2A question 2004-21 (shift effective date to 2011)
16	N/A	Deductible limit calculation - "five steps"
17	N/A	Deductible limit calculation - "five steps"
18	404FFL-14	Modified EA-2A question 2004-24 (shift effective date to 2004)

	404(o) practice problems – Single employer maximum funding
1	Calculate deductible limit
2	Calculate deductible limit - focus on Cushion amount
3	Calculate deductible limit - focus on At-Risk definition
4	Calculate deductible limit - focus on At-Risk definition
5	Calculate deductible limit
6	Calculate deductible limit
7	Calculate deductible limit

	412(d)(1) practice problems
1	Funding method changes
2	Funding method changes
3	Funding method changes
4	Funding method changes
5	Funding method changes

	414(l) practice problems
1	1.414(l) - Special schedule for merger
2	1.414(l) - Special schedule for merger
3	1.414(l) - Special schedule for merger

	Obsolete 415 problems - NOT revised for new IRC 415 regulation rules
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	415 practice problems
20	Retire at age 55, Lump sum calculation, death benefit is PV of AB, modified EA-2B 2004 #22
21	Simplified calculation of 415 compensation limit, modified EA-2B 2004 #25
22	Retire at age 55, certain and life optional payment form, no forfeiture at death, modified EA-2B 2004 #37
23	Retire at age 58, life only payment form, modified EA-2B 2005 #18
24	Retire at age 55, QJ&SA payment form, no subsidized death benefit, modified EA-2B 2005 #24
25	Simplified calculation of 415 compensation limit, modified EA-2B 2005 #33
26	Retire at age 66, certain and life normal form, QPSA death benefit, modified EA-2B 2005 #36
27	Retire at age 54, certain and life normal form, death benefit is PV of AB, modified EA-2B 2006 #28
28	Retire at age 55, Lump sum calculation, death benefit is PV of AB, modified EA-2B 2003 #24
29	Retire at age 62, Life annuity, discuss limitation year concept
30	Single employer plan valuation calculations with assumed retirement age 60
31	Retire at age 63 in 2008, Life annuity, discuss 401(a)(17) limit and 415 compensation limit
32	Multi-employer plan valuation calculations with assumed retirement age 60

	416 practice problems
1	Top Heavy ratio calculation
2	Vested benefit, given compensation history
3	Accrued liability, frozen plan
4	Top Heavy ratio calculation
5	Top Heavy ratio calculation
6	Determination of key employees
7	Top Heavy ratio calculation

	Overheads	417(e) practice problems
1	417-10	2004 EA-2B #35
2	417-10	Lump sum value of 10 year certain benefit
3	N/A	Lump sum value of 5 year certain and life benefit
4	N/A	Lump sum value of 10 year certain benefit
5	N/A	Funding target - 10 year certain benefit
6	N/A	Funding target - 10 year certain benefit

	430(c)(2)(D) practice problems – Funding relief
1	Basic concepts
2	2 plus 7-year amortization schedule
3	15-year amortization schedule
4	2 plus 7-year amortization schedule
5	Installment acceleration amount

	430(g) practice problems - Yield curve and segment rates
1	Calculate effective rate of interest
2	Calculate effective rate of interest
3	Calculate AAV, discount outstanding contributions
4	Calculate effective rate of interest, use transition rule
5	Q&A on Notice 2009-22
6	Calculate AAV based on Notice 2009-22
7	Calculate AAV based on Notice 2009-22
8	Calculate AAV based on Notice 2009-22
9	Calculate AAV based on Notice 2009-22
10	Calculate AAV based on Notice 2009-22
11	Calculate AAV based on Notice 2009-22

	430(h) practice problems - PV calculation with segment rates
1	Funding target - life only benefit
2	Calculate effective rate of interest
3	Funding target - life only benefit
4	Funding target - life only benefit
5	Funding target - retirement decrements
6	Funding target - certain only annuity
7	Funding target - certain only annuity with phase-in of segment rates
8	Funding target - certain and life annuity - full yield curve
9	Funding target - life annuity - using JBEA factor tables
10	Funding target - life annuity - using JBEA factor tables

	430(j) practice problems - Quarterly contributions
1	Calculate remaining employer contribution
2	Calculate remaining employer contribution
3	Calculate remaining employer contribution
4	Calculate remaining employer contribution
5	Calculate next year's carryover balance and prefunding balance
6	Calculate next year's prefunding balance
7	Calculate next year's prefunding balance
8	Calculate next year's carryover balance and prefunding balance
9	Calculate next year's carryover balance and prefunding balance
10	Calculate remaining employer contribution
11	Calculate remaining employer contribution
12	Calculate remaining employer contribution
13	Calculate remaining employer contribution - liquidity shortfall cap

	430 practice problems – Single employer
1	Calculate minimum required contribution
2	Calculate minimum required contribution
3	Calculate minimum required contribution
4	Interest adjustment on prefunding balance
5	Interest adjustment on prefunding balance

	430 practice problems – Single employer
6	Calculate minimum required contribution
7	Apply carryover / prefunding balance towards Minimum Required Contribution
8	Apply carryover balance / prefunding balance towards MRC
9	Apply carryover balance / prefunding balance towards MRC
10	Apply carryover balance / prefunding balance towards MRC
11	Apply carryover balance / prefunding balance towards MRC
12	Calculate excess of contribution over "smallest amount"
13	Calculate excess of contribution over "smallest amount"
14	Calculate minimum required contribution
15	Calculate sum of carryover balance and prefunding balance
16	Calculate excess of contribution over "smallest amount"
17	Calculate Minimum Required Contribution - sole participant
18	Calculate maximum possible carryover balance
19	Calculate minimum required contribution
20	Calculate minimum required contribution
21	Calculate "smallest amount" to satisfy minimum funding standard
22	Calculate "smallest amount" to satisfy minimum funding standard
23	Calculate maximum possible prefunding balance
24	Calculate shortfall amortization charge
25	Calculate rate of return on assets
26	Calculate sum of carryover balance and prefunding balance
27	Calculate "smallest amount" to satisfy minimum funding standard
28	Calculate sum of carryover balance and prefunding balance
29	Calculate sum of carryover balance and prefunding balance
30	Calculate "smallest amount" to satisfy minimum funding standard
31	Calculate Minimum Required Contribution - full yield curve
32	Calculate "smallest amount" for minimum funding
33	Calculate "smallest amount" for minimum funding
34	Calculate maximum carryover balance
35	Calculate shortfall amortization charge
36	Calculate excess of contribution paid over "smallest amount"
37	Calculate "smallest amount" for minimum funding
38	Calculate Minimum Required Contribution
39	Change in "smallest amount" due to AAV method change

	430 practice problems – Single employer
40	Calculate Minimum Required Contribution
41	Individual calculations - "smallest amount" for minimum funding
42	Calculate Minimum Required Contribution
43	Calculate "smallest amount" for minimum funding
44	Calculate "smallest amount" for minimum funding
45	Calculate "smallest amount" for minimum funding - two scenarios
46	Calculate "smallest amount" for minimum funding - JBEA factor tables
47	Calculate "smallest amount" for minimum funding - waiver
48	Calculate next year carryover balance
49	Calculate Minimum Required Contribution
50	Calculate death benefit normal cost and funding target
51	Calculate death benefit normal cost and funding target
52	Calculate Minimum Required Contribution

	430(i) practice problems - At-Risk plans
1	Reduce carryover balance to avoid being At-Risk
2	Determine plans in At-Risk status
3	Calculate FTAP to determine At-Risk status
4	Calculate final Funding target for plan in At-Risk status
5	Determine plans in At-Risk status
6	Calculate FTAP to determine At-Risk status
7	Calculate final Funding target for plan in At-Risk status
8	Calculate final Funding target for plan in At-Risk status
9	Calculate final Funding target with retirement decrements
10	Calculate minimum required contribution

	431 practice problems - Multiemployer minimum funding
1	Interest rate change, modified EA-2A question 2003-05
2	Modified EA-2A question 2003-05 (shift effective date to 2004)
3	Amortization periods for minimum, modified EA-2A question 2003-23
4	Modified EA-2A question 2003-23, (shift effective date to 2003)
5	Plan amendment, modified EA-2A question 2003-41

Summary of Practice Problems - 2018

	431 practice problems - Multiemployer minimum funding
6	Modified EA-2A question 2003-41, (shift effective date to 2008)
7	Minimum versus maximum, modified EA-2A question 2004-09
8	Modified EA-2A question 2004-09, (shift effective date to 2008)
9	Derive missing bases, modified EA-2A question 2004-41
10	Modified EA-2A question 2004-41, (shift effective date to 2006)
11	Calculate minimum contribution, modified EA-2A question 2003-24
12	Calculate "smallest amount", modified 412 practice problem 2
13	Calculate "smallest amount", modified 412 practice problem 3
14	Shortfall G/L amortization periods, modified 412 practice problem 9
15	Calculate Shortfall G/L, modified 412 practice problem 11
16	Interest rate change, calculate change in minimum required contribution
17	Change plan benefit, calculate "smallest amount" at 01/01
18	Interest rate change, calculate "smallest amount" at 01/01

	432 practice problems - Multiemployer critical / endangered status
1	2010 EA-2B exam question 18
2	2010 EA-2B exam question 33
3	2010 EA-2B exam question 45

	436 practice problems – Benefit Restrictions - Single employer plans
1	AFTAP calculation
2	AFTAP calculation
3	Deemed reduction in CB / PB
4	Deemed reduction in CB / PB
5	Deemed reduction in CB / PB
6	Deemed reduction in CB / PB
7	IRC 436 restrictions
8	Smallest contribution to satisfy minimum funding
9	Smallest contribution to satisfy minimum funding