Module 10 – Financial Accounting for MBAs, 7th Edition by Easton, Wild, Halsey & McAnally

Practice Quiz Solutions

1. Assume United Airlines discloses the following in the footnotes to its 10-K report relating to its leasing activities.

Year ending December 31 ($ millions)	**Capital Leases**	**Aircraft Operating Leases**
2016………………………………………………………	$ 39	$ 1,003
2017………………………………………………………	40	966
2018………………………………………………………	46	955
2019………………………………………………………	16	910
2020……………………………………………………….	16	924
Later years………………………………………………	457	6,310
Total minimum lease payments………………………	614	$11,068
Less: amount representing interest…………………..	341	
Present value of capital leases……………………….	273	
Less: current maturities of capital leases……………	22	
Long-term capital leases………………………………	$251	

Compute the present value of United's operating lease payments assuming a 7% discount rate and round the remaining lease term to the nearest whole year.

a. $11,068 million
b. $8,752 million
c. $7,464 million
d. $5,170 million

Answer: c

Present value of United Airlines' operating lease payments:

Year ($ millions)	Operating Lease Payment	Discount Factor (i=0.07)	Present Value
1................................	1,003	0.93458	$ 937
2................................	966	0.87344	844
3................................	955	0.81630	780
4................................	910	0.76290	694
5................................	924	0.71299	659
>5................................	6,310	5.38929*	3,550**
Remaining life	7 years***		$7,464

* Present value of annuity factor for 7 years @ 7%
** $924 x 5.38929 x 0.71299 = $3,550
*** $6,310 ÷ $924/year = 6.829 years, rounded to 7 years

(Alternate solution using present value formula or financial calculator: PV = $7,395.98)

2. Assume American Express discloses the following pension footnote in its 10-K report.

(Millions)	2016
Service cost………………………………….	$104
Interest cost………………………………….	117
Expected return on plan assets………………	(141)
Other………………………………………….	32
Net periodic pension benefit cost…………..	$112

How much pension expense does American Express report in its 2016 income statement?

a. $104 million
b. $221 million
c. $80 million
d. $112 million

Answer: d

American Express reports $112 million in pension expense for 2016. The footnote also reports the component parts of the total expense.

3. Assume YUM! Brands, Inc., discloses the following pension footnote in its 10-K report.

Pension Benefits ($ millions)	2016	2015
Benefit obligation at beginning of year…	$700	$629
Service cost…………………………….	33	32
Interest cost…………………………….	43	39
Plan amendments………………………	-	1
Curtailment gain……………………….	(2)	(2)
Settlement loss…………………………	1	—
Benefits and expenses paid…………..	(33)	(26)
Actuarial (gain) loss……………………	73	27
Benefit obligation end of year…………..	$815	$700

The fair market value of YUM!'s plan assets is $610 million, as of 2016. What is the funded status of the plan, and how will this be reflected on YUM!'s balance sheet?

a. Underfunded, $205 million liability
b. Underfunded, $205 million asset
c. Underfunded, not reflected on the balance sheet
d. Underfunded, $815 million liability

Answer: a

The funded status is $(205), which is the PBO less the market value of the plan assets ($815 PBO - $610 Plan assets). The negative amount indicates that the plan is underfunded as of 2016. YUM!'s balance sheet will show a liability for this amount.

4. Assume Fortune Brands, Inc., reports the following footnote relating to its leased facilities in its 2016 10-K report.

   Future minimum rental payments under noncancelable operating leases as of December 31, 2016 are as follows:

(In millions)	
2017…………………………………………….	$ 45.6
2018…………………………………………….	33.5
2019…………………………………………….	26.9
2020…………………………………………….	20.2
2021…………………………………………….	15.7
Remainder……………………………………….	37.3
Total minimum rental payments……………….	$179.2

   Compute the present value of these operating leases using a discount rate of 7% and round the remaining lease term to the nearest whole year.

   a. $140.7 million
   b. $179.2 million
   c. $127.3 million
   d. $154.9 million

   Answer: a

   The present value of the operating leases is computed as follows:

Year ($ millions)	Operating Lease Payment	Discount Factor (i=0.07)	Present Value
1.................................	$45.6	0.93458	$ 42.6
2.................................	33.5	0.87344	29.3
3.................................	26.9	0.81630	22.0
4.................................	20.2	0.76290	15.4
5.................................	15.7	0.71299	11.2
>5.................................	37.3	1.80802*	20.2**
Remaining life	2*** years		$140.7

   * Present value of annuity factor for 2 years @ 7%
   ** $15.7 x 1.80802 x 0.71299 = $20.2
   *** $37.3 ÷ $15.7/year = 2.376 years, rounded to 2 years

   (Alternate solution using present value formula or financial calculator: PV = $144.19)

5. Assume Verizon Communications, Inc., provides the following footnote relating to its leasing activities in its 10-K report.

The aggregate minimum rental commitments under noncancelable leases for the periods shown at December 31, 2016, are as follows:

Years (dollars in millions)	Capital Leases	Operating Leases
2017	$ 37	$1,184
2018	28	791
2019	21	652
2020	13	504
2021	12	316
Thereafter	55	1,050
Total minimum rental commitments	166	$4,497
Less interest and executory costs	(54)	
Present value of minimum lease payments	112	
Less current installments	(17)	
Long-term obligation at December 31, 2016	$ 95	

Assuming that this is the only available information relating to its leasing activities, what amount does Verizon report on its balance sheet for its total lease obligations?

a. $95 million
b. $112 million
c. $166 million
d. $4,452 million

Answer: b

According to Verizon's lease footnote, it has both capital and operating leases. Only the capital leases are reported on-balance-sheet in the amount of $112 million ($17 million in current liabilities and $95 million as long-term liabilities). However, this is not Verizon's total lease obligation. Verizon also has sizeable leases that it has classified as operating. In fact, the minimum lease payments under operating leases are over 27 times that for capital leases--$4,497 million vis-à-vis $166 million! These operating leases are not reported on-balance-sheet.

6. Assume Ford Motor Company reports the following pension footnote in its 10-K report.

	Pension Benefits	
($ millions)	U.S. Plans 2016	Non-U.S. Plans 2016
Change in Benefit Obligation		
Benefit obligation at January 1…………………	$43,077	$29,452
Service cost……………………………………….	734	630
Interest cost……………………………………..	2,398	1,408
Amendments…………………………………….	-	218
Separation programs…………………………….	179	422
Plan participant contributions……………..	41	146
Benefits paid…………………………………….	(2,856)	(1,355)
Foreign exchange translation………………..	—	(2,936)
Divestiture………………………………………..	(400)	(163)
Actuarial (gain) loss……………………………..	722	2,878
Benefit obligation December 31…………..	$43,895	$30,700
Change in Plan Assets		
Fair value of plan assets at January 1…….	$39,628	$20,595
Actual return on plan assets…………………	3,922	3,239
Company contributions………………………	1,432	1,355
Plan participant contributions…………….	41	150
Benefits paid…………………………………….	(2,856)	(1,355)
Foreign exchange translation……………….	—	(1,924)
Divestiture……………………………………….	(309)	(95)
Other…………………………………………….	(1)	(38)
Fair value of plan assets at December 31…..	$41,857	$21,927

What is the total amount paid to retirees during fiscal 2016 for its U.S. and non-U.S. plans?

a. $1,364 million
b. $187 million
c. $2,787 million
d. $4,211 million

Answer: d

During fiscal 2016, retirees received payments of $2,856 million for U.S. pension plans and $1,355 million for non-U.S. pension plans, totaling $4,211 million. These payments came from the pension plan assets and not from Ford’s operating cash flows.

7. Assume the Abercrombie & Fitch 10-K report contains the following footnote relating to its leasing activities. This is the only information it discloses relating to its leasing activity.

   At January 28, 2017, the Company was committed to non-cancelable leases with remaining terms of one to 15 years. A summary of operating lease commitments under non-cancelable leases follows (thousands):

2017	$187,674
2018	$187,397
2019	$178,595
2020	$169,856
2021	$155,670
Thereafter	$538,635

   Assuming that its operating leases relate to real estate, and that A&F depreciated such assets on a straight-line basis with no salvage value and useful life of 8 years, estimate the effect on the company's 2017 income before tax of capitalizing these operating leases. Use a 7% discount rate and round remaining lease life to the nearest whole year.

   a. Reduce income before taxes by $10,585,000
   b. Increase income before taxes by $187,674,000
   c. Reduce income before taxes by $187,674,000
   d. Reduce income before taxes by $198,259,000

   Answer: a

   Capitalization of Abercrombie & Fitch's operating leases would make the following adjustments to its income statement:

   1. Remove rent expense of $187,674,000
   2. Add depreciation expense of $1,016,713,000(see below)/ 8 years = $127,089,000.
   3. Add interest expense of $1,016,713,000(see below) × 7% = $71,170,000.

   The net effect is to reduce income before taxes by $10,585,000.

Year ($ 000s)	Operating Lease Payment	Discount Factor (i=0.07)	Present Value
1	$187,674	0.93458	$ 175,396
2	187,397	0.87344	163,680
3	178,595	0.81630	145,787
4	169,856	0.76290	129,583
5	155,670	0.71299	110,991
>5	538,635	2.62432* x 0.71299	291,276**
Remaining life	3*** years		$1,016,713

   * Present value of an annuity for 3 years at 7%
   ** $155,670 x 2.62432 x 0.71299 = $291,276
   ***$538,635 ÷ $155,670 per year = 3.46 years, rounded to 3 years.

   (Alternate solution using present value formula or financial calculator: PV = $1,056,381.36)

8. Which of the following is *not* a component of net pension expense?

   a. Interest cost
   b. Expected return on plan assets
   c. Benefits paid to retirees
   d. Amortization of prior service cost

   Answer: c

   Benefits paid to retirees are not a component of net pension expense.

9. Assume Cisco Systems reports the following footnote disclosure to its 10-K report ($ millions).

($ millions)	**July 30, 2016**
Federal	
Current	$1,340
Deferred	497
	1,837
State	
Current	496
Deferred	(292)
	204
Foreign	
Current	404
Deferred	(150)
	254
Total	$2,295

   What amount of income tax expense does Cisco report in its income statement for 2016?

   a. $2,240 million
   b. $2,295 million
   c. $ 55 million
   d. $1,837 million

   Answer: b

   Cisco reports $2,295 million of tax expense in its income statement. This is the total of Federal, state and foreign taxes.

10. The income tax footnote to the financial statements of Chambers, Inc. follows.

The components of the provision for income taxes for the years ended May 31 were as follows:

($ millions)	2017	2016
Current provision		
Domestic		
Federal …………………….	$371	$112
State and local …………..	54	28
Foreign ………………………	85	39
	510	179
Deferred provision (benefit)		
Domestic		
Federal …………………….	(22)	304
State and local …………..	(7)	25
Foreign ………………………	—	—
	(29)	329
Provision for income taxes …..	$481	$508

What percentage of total tax expense is currently payable in 2016 and 2017?

a. 2016: 65% 2017: (6)%
b. 2016: 100% 2017: 100%
c. 2016: 82% 2017: 73%
d. 2016: 35% 2017: 106%

Answer: d

We can calculate the percentage currently payable by dividing the current provision by total tax expense. This yields 106% ($510 million / $481 million) in 2017 and 35% ($179 million / $508 million) in 2016.