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**FINANCIAL STATEMENT
MODELING**

1. Jared Mush is preparing a report on the Everystate corporation. The information below pertains to the year ending 31 December 2015 and 2016.

	Dec. 31, 2016	Dec. 31, 2015
Property-Liability	32,567	31,309
Everystate Financial	3,928	4,309
Corporate and Other	39	35
Consolidated revenues	\$ 36,534	\$ 35,618

Mush's growth forecast for 2017 is 3% for property/liability, 0% for financial and 2% for corporate and other. Also, Mush estimates that EBIT margins for the three divisions are 17%, 18% and 23% respectively. Forecasted 2017 EBIT is closest to:

- (A) \$6,200
(B) \$6,400
(C) \$5,700

2. Rapid Tech Inc has mistakenly overestimated the useful lives of their PP&E: it has become apparent that due to rapid changes in technology, a significant part of Rapid's PP&E will need to be replaced sooner than anticipated. Rapid's CFO has indicated that the new depreciation schedules will take into account the shortened lives of the PP&E that will be acquired as replacement. The most likely impact on Rapid's future return on invested capital (ROIC) is that ROIC will:

- (A) decrease.
(B) remain the same.
(C) increase.

3. Kerry Winstone covers TV Stream Inc., a U.S. based company offering streaming video. She has carried out an analysis using Porter's five forces model. The table below summarizes her main conclusions.

Force	Factors
Threat of substitutes	Broadcast TV and DVD media are cost-effective substitutes.
Rivalry	There are several companies in the industry and TV stream has a 25% market share.

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Bargaining power of suppliers	The content must be purchased from the major networks and movie studios.
Bargaining power of buyers	Customers are fragmented and the base consists largely of individual subscribers.
Threat of new entrants	Major TV networks are in position to launch their own streaming service using existing technologies.

Winstone should most appropriately conclude that:

- (A) TV Stream is likely to have a high degree of pricing power derived largely from high barriers to entry.
- (B) TV Stream is unlikely to have a large degree of pricing power and below average profitability due to threat of new entrants.
- (C) TV Stream is likely to have a large degree of pricing power and above average profitability due to favorable bargaining power of suppliers.

4. When an analyst is developing long term projections of earnings for a company, which of the following statements is least accurate?

- (A) Earnings projections should be based on the most recent earnings for growing companies as it reflects the current state of the economy.
- (B) A perpetuity should only be used if the analyst does not anticipate any inflection points occurring in the industry or economic environment.
- (C) When forecasting long term earnings for a highly cyclical company, an expected mid-cycle level of earnings should be used.

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Mush believes that for 2017, the growth rate in property/liability is 3%, financial is 2% and corporate and other is 0. The estimated revenues for 2017 is closest to:

- (A) \$37,590
- (B) \$36,678
- (C) \$38,230

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6. Victor Mendoza is an equity analyst for LLT Partners, a private wealth management firm. Mendoza is currently valuing Testo Inc, a seller of smart phones. While reviewing the financials, Mendoza collects sales information of two of Testo's popular models as indicated below (figures in \$ millions):

Year	20x1	20X2	20X3
Alpinex	88.9	92.3	97.5
Bemax	0	54	433

The annual growth rate for both models combined from 20x1 to 20x3 is closest to:

- (A) 144%
 (B) 496%
 (C) 44%
7. Roy Banstaza is forecasting 2014 SG&A expenses for Compuland Inc., a provider of online and live basic computing classes in the U.S. Relevant figures for the last 3 years for Compuland are given below:

	2011 \$000's	2012 \$000's	2013 \$000's
Revenue	20,050	20,062	20,155
SG&A	5,212	5,218	5,240
	\$	\$	\$
Revenue per customer	225	220	218

Banstaza is forecasting a 2% fall in SG & A per customer in 2014 compared to 2013 due to an improved online ordering and invoicing system that Compuland has adopted. He also anticipates that the number of customers will continue to grow at the cumulative average growth rate that Compuland has experienced over the last two years.

Which of the following is closest to Banstaza's forecasted SG&A expense for 2014?

- (A) \$5,337,000.00
 (B) \$5,231,000.00
 (C) \$5,328,000.00
8. Davide Andreu is concerned about the possible impact of inflation on two German retailers that he covers in his equity analyst role. Andreu has used last year's financials to produce common size income statements for the two retailers as shown below.

	Tooboola GmbH	Portentona GmbH
Sales	100%	100%
Cost of Goods Sold	38%	48%
Gross Margin	62%	52%
Sales, General & Admin	40%	20%
Depreciation	5%	15%
Operating Margin	17%	17%

Andreu is forecasting inflation of 10% in cost of goods sold for both companies due to large increases in commodity prices in the next period. Due to the fragile state of the economic recovery does not expect either company to be able to pass these costs on to consumers. Sales, general and admin costs are likely to rise by 5% and accounting depreciation will be unaffected.

If Andreu's forecasts are correct, which of the following statements is least accurate?

- (A) Both companies will experience the same decrease in gross margin.
- (B) The forecasted operating margins will be equal for Tooboola and Portentona.
- (C) Tooboola has a larger forecasted gross margin than Portentona.

9. Which of the following is the most accurate statement with regard to the bargaining power of buyers?

- (A) This force is strong due to comment (14).
- (B) This force is strong due to comment (16).
- (C) This force is weak due to comment (13).

10. Which of the following is the most accurate statement with regard to the bargaining power of suppliers?

- (A) This force is weak due to (2), (3), and (4).
- (B) This force is strong due to comments (2), (3), and (4).
- (C) This force is average due to (2), (3), and (4).

11. Which of the following is the most accurate statement with regard to the threat of new entrants?

- (A) This force is strong due to comments (10) and (11).
- (B) This force is weak due to comments (10) and (11).
- (C) This force is average due to comments (10), (11), and (13).

12. Which of the following is the most accurate statement with regard to the availability of substitute products?

- (A) This force is weak due to comment (16).
- (B) This force is strong due to comment (17).
- (C) This force is weak due to comment (17).

13. When comparing a large company with a much smaller company, which of the following statements regarding economies of scale is most accurate?

- (A) An analyst will conclude that economies of scale are present in the industry if the smaller company has a higher gross margin and lower revenues.
- (B) An analyst will conclude that economies of scale are present in the industry if the larger company has higher revenues and higher gross profit.
- (C) An analyst will conclude that economies of scale are present in the industry if the larger company has higher revenues and a higher gross profit margin.

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14. Ben Lorson is analyzing the revenue growth of Symphonica Inc., a retailer of audio visual equipment. Relevant data for the last two years is shown below:

	2013 \$ millions	2012 \$ millions
Revenue	1,408	1,375
Total market size	17,606	17,450
	\$billions	\$ billions
Nominal GDP growth	16,451	16,400

He is looking at three methods of predicting revenue for 2014:

1. Assume that Symphonica retains its 2013 share of the market for 2014, and the total market grows at the same rate as it did last year.
2. Assume that revenue growth rate is equal to previous year's nominal GDP growth rate.
3. A bottom-up approach which assumes that the growth rate of Symphonica's revenue will be the same as last year

Which of the following statements regarding Lorson's forecast is most accurate?

- (A) Lorson's market growth and market share model predicts a higher 2014 revenue figure for Symphonica than his bottom-up approach.
 - (B) Lorson's growth relative to GDP growth model predicts a higher 2014 revenue figure for Symphonica than his market growth and market share model.
 - (C) Lorson's bottom-up approach predicts the highest revenue for 2014.
15. Yolanda Resham is currently developing a forecast horizon for several companies that she covers in her role as an equity analyst. The equities under consideration are part of a portfolio with an average annual turnover of 25%. Which of the following statements is least accurate regarding the choice of time horizon?
- (A) A time horizon of 4 years would be consistent with the portfolio turnover.
 - (B) The time horizon should be independent of the average holding period for a stock.
 - (C) Cyclicalities should be considered when developing the timeframe.
16. Cynbo Industries Limited operates in two countries Mazat and Napat. The effective tax rates of Cynbo's operations in Mazat and Napat are 15% and 22% respectively. For the most recent fiscal year, Cynbo reported profit before tax of \$350 and \$200 for Mazat and Napat respectively. For the next year, it is expected that Cynbo's profit will grow at 5% and 8% for Mazat and Napat respectively. The effective tax rate for Cynbo for the next fiscal year is closest to:
- (A) 19.4%
 - (B) 18.5%
 - (C) 17.6%

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17. For the purpose of forecasting proforma financial statements, which of the following statements is most accurate?
- (A) Forecasted capital expenditure is usually based on historic information whereas forecasted depreciation rates are usually based on forecasted data.
 - (B) Forecasted depreciation rates are usually based on historic information whereas forecasted capital expenditure is usually based on forecasted data.
 - (C) Forecasted depreciation rates and capital expenditure are usually based on forecasted data.
18. Deluxe Toys Inc. produces electronic toys for 2-12 year olds. Ben Sharpe, Analyst with AP Partners, is forecasting Deluxe's operating profit for the next fiscal year. Sharpe notices that Deluxe's selling expenses have increased from 5% of sales to 8% of sales over last few years. This is most likely to be due to the force(s) of:
- (A) Intra-industry rivalry and threat of substitutes.
 - (B) Intra-industry rivalry and threat of vertical integration.
 - (C) Threat of new entrants and bargaining power of buyers.
19. Everystate Corporation reports Long-term debt of \$3,398 and \$3,658 respectively for the year ended Dec 31 2016 and 2015 respectively. Everystate reported an interest expense of \$295 and \$292 for the years ended 2016 and 2015 respectively. Everystate's interest rate on average gross debt is closest to:
- (A) 8.36%
 - (B) 8.53%
 - (C) 8.68%
20. Which of the following statements regarding pricing power is most accurate? A company is most likely to have a high level of pricing power, if it is operating in an industry that:
- (A) is fragmented.
 - (B) has high fixed costs.
 - (C) has low barriers to exit.
21. PixOut Inc. is a U.S. based manufacturer of waterproof cameras. PixOut's products are typically used by leisure customers wishing to use a camera for snorkeling and deep-sea diving. The cameras come in at a reasonable price point and are aimed primarily at the 'point and shoot' market. Recently, a rival manufacturer has brought an extremely cheap waterproof case for smart phones to the market, and this is having a definite impact on PixOut's sales.

Torsten Gruber is forecasting the impact the phone cover may have on PixOut's revenue next year. Gruber's predicted sales figures in units are shown below:

	2014E
PixOut cameras sold (units)	42,505
Sales of smart phone covers (units)	11,044

Gruber is assuming that a percentage of the phone cover sales have cannibalized PixOut camera sales. In predicting the sales for 2014, he is assuming a 25% cannibalization rate. In addition, he forecasts the average selling price of a PixOut camera is \$185 and the average selling price of the smart phone cover is \$80.

Which of the following is closest to Gruber's estimate of the revenue lost by PixOut due to cannibalization in 2014?

- (A) \$265,056.
- (B) \$5,898,000.
- (C) \$510,785.

22. Garcia Mendoza is currently forecasting revenue for Remnicky Inc., a global provider of sports statistics to broadcasters. Mendoza is forecasting that Remnicky's revenue growth rate will be 100bps (1%) higher than global nominal GDP rate next year due to an increased interest in tracking statistics worldwide. In consultation with his economic research department, Mendoza has predicted that the real global GDP will grow at 1% next year, before flattening out and showing zero growth for the next 4 years. Inflation is predicted to remain steady at 1.5% for the next 5 years. Which of the following statements about Mendoza's forecast for next year is most accurate?

- (A) Mendoza is forecasting growth of using 2.5% a top-down approach.
- (B) Mendoza is forecasting growth of 3.5% using a hybrid approach.
- (C) Mendoza is forecasting growth of using a 3.5% top-down approach.

23. Victor Mendoza is an equity analyst for LLT Partners, a private wealth management firm. Mendoza is currently valuing Testo Inc, a seller of smart phones. While reviewing the financials, Mendoza collects sales information of two of Testo's popular models as indicated below (figures in \$ millions):

Year	20x1	20X2	20X3
Alpinex	88.9	92.3	97.5
Bemax	0	54	433

Mendoza believes that in 20X4 the combined growth rate of Alpinex and Bemax will slow to 30%. Mendoza also believes that Bemax's share of revenue will grow to 90%. The estimated level of sales for Bemax based on Mendoza's assumptions is closest to:

- (A) \$621 million
- (B) \$507 million
- (C) \$563 million

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Year	20x1	20X2	20X3
Alpinex	88.9	92.3	97.5
Bemax	0	54	433

What percentage of combined growth in 20X3 is due to Bemax?

- (A) 99%
- (B) 54%
- (C) 79%

25. Dan Partrino is currently constructing pro-forma accounts for Roiling Inc., an engineering company based in the U.S. He has put together the following forecast for the next 3 years:

	2013 \$millions	2014E \$millions	2015E \$millions	2016E \$millions
Sales	935	954	973	993
PPE(NVB)	295			
EBITDA		239	253	278
Net Income for year		95	107	130

Partrino is now forecasting the balance sheet and intends to use the following assumptions:

- Capital expenditure will remain constant at 2.5% of sales for the foreseeable future.
- Depreciation will be 1.5% of sales in 2014, 1.7% of sales in 2015 and 1.9% of sales in 2016.

Partrino's forecast of the net book value of PPE at the end of 2016 is closest to:

- (A) \$325 million.
- (B) \$304 million.
- (C) \$318 million.

26. Deluxe Toys Inc. produces electronic toys for 2-12 year olds. The most-recent income statement for Deluxe is given below:

Revenues	1500
Cost of goods sold	630
Selling expenses	120
Administrative expense	330
Operating profit	420

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Ben Sharpe, Analyst with AP Partners, is forecasting Deluxe's operating profit for the next fiscal year. Sharpe believes that a new sales tax of 10% is going to be imposed on electronic toys. Sharpe also believes that cost of goods sold will remain the same per unit sold. Selling expenses are a fixed percentage of sales, while administrative expenses are fixed. Deluxe is expected to pass on the entire cost of the sales tax to the consumer. The price elasticity of demand for Deluxe's toys is 0.75

(e.g., volume will decrease by 7.5% when the effective price increases by 10%.)

Forecasted operating margin for the next year is closest to:

- (A) 23%
- (B) 26%
- (C) 21%

