

TAKE-TWO INTERACTIVE INTERACTIVE SOFTWARE QUIZ

	Points Assigned	Points Scored
Problem 1	<u>8</u>	_____
Problem 2	<u>20</u>	_____
Problem 3	<u>20</u>	_____
Problem 4	<u>8</u>	_____
Problem 5	<u>14</u>	_____
Total Score	<u><u>70</u></u>	<u>_____</u>

Problem 1. Business Strategy Analysis

(i) What are the primary hardware platforms on which Take-Two's software products are used? **[4 points]**

(ii) List one key success factor and one significant risk associated with the concentration of Take-Two's revenues from products used on a limited number of hardware platforms. **[4 points]**

1. Key success factor

2. Significant risk

Problem 2. Accounting Analysis

- (i) Summarize the accounting policy used by Take-Two for recognizing revenue on the sale of *Grand Theft Auto V*. **[4 points]**
- (ii) Assume that instead of using its current accounting policies for deferring the recognition of both revenues and cost of goods sold on certain sales, Take-Two instead recognized these revenues and costs at the point of sale. Estimate the Income (loss) from operations that Take-Two would have reported for the fiscal year ended March 31, 2017. **[8 points]**

- (iii) Assume that instead of using its current accounting policy for 'Research and development' expense, Take-Two instead capitalized these costs in the fiscal year the costs are incurred and then amortized the costs on a straight-line basis over the subsequent two fiscal years. Estimate the Income (loss) from operations that Take-Two would have reported for fiscal year ended March 31, 2017. **[5 points]**
- (iv) Which of the above two accounting methods for these research and development costs do you think better reflects the underlying economics of the expenditures? Briefly explain your answer. **[3 points]**

Do not write below this point.

Problem 3. Financial Analysis

- (i) Compute the net operating asset (NOA) turnover ratios for Take-Two and Activision Blizzard for their most recent fiscal year. **[6 points]**

NOA Turnover for Take-Two =

NOA Turnover for Activision Blizzard =

- (ii) Summarize the primary reason(s) for the difference between the NOA turnover ratios that you have computed above. **[4 points]**

- (iii) Estimate the average number of days that elapsed between the receipt of cash from customers and the recognition of the associated revenue for Take-Two and Activision Blizzard during the most recent fiscal year. Be sure to specify whether cash is received before or after revenue is recognized in each case. **[6 points]**

Average number of days for Take-Two =

Average number of days for Activision Blizzard =

- (iv) Briefly identify the primary reason(s) for the difference between the average number of days for Take-Two and Activision Blizzard that you computed above. **[4 points]**

Problem 4. Forecasting

- (i) The forecasting model in Exhibit 3 forecasts that Take-Two's Operating Margin will grow from 5.1% in FY 2017 to 22.3% in FY 2019. Identify the key drivers of the improved margin. **[4 points]**
- (ii) The forecasting model forecasts that Take-Two's balance of 'Software development costs and licenses, net of current portion' grow from 381,910 at the end of FY 2017 to 401,910 at the end of FY 2019. Briefly evaluate the plausibility of this forecasting assumption. **[4 points]**

Problem 5. Valuation Analysis

In this problem, we will value Take-Two using the residual income valuation model and the financial forecasts in the forecasting model. Use a discount rate (cost of equity) of 8%.

- (i) Compute Take-Two's residual income for FY 2018 and FY 2019. **[6 points]**

FY 2018 Residual Income:

FY 2019 Residual Income:

- (ii) Use the residual income valuation model to value Take-Two's common equity per share at the end of FY 2017 by using your answers from part (i) above and Take-Two's book value of common equity at the end of FY 2017. Assume that residual income remains constant at the FY 2019 level for all years beyond FY 2019. Use 102,621 thousand shares outstanding in your computation. **[8 points]**