Name: _____Key: Version 100_____   Due: _____0_____

Write your answers in the boxes below each question. On separate paper, neatly show your work for each question. No credit will be awarded if you provide an answer but show no work. When completed, use the Adobe Scan app to take a picture and save as a single PDF file with this as the first page. Save the file as V# where the # is your version number from the top right of this page. Example: "V101.pdf" if you have Version 101. Upload to josephfarizo.com/assignments.html. Correct answers are important, only minimal partial credit is awarded.

Zion Inc.

ASSETS		**2022**		**2021**
Current assets				
Cash and cash equivalents	$	376	$	537
Accounts receivable		165		165
Inventories		415		402
Total current assets		956		1,104
Fixed Assets				
Gross property and equipment		2,592		2,629
Accumulated Depreciation		(315)		(161)
Net plant and equipment		2,277		2,468
Total Assets	$	3,233	$	3,572
LIABILITIES AND EQUITY		**2022**		**2021**
Current liabilities				
Accounts payable	$	340	$	310
Notes payable		213		209
Total current liabilities		553		519
Long term debt		355		559
Total liabilities		908		1,078
Owners Equity				
Common stock and paid-in surplus		227		539
Retained earnings		2,098		1,955
Total Equity		2,325		2,494
Total Liabilities and Equity	$	3,233	$	3,572

	2022
Net sales	$ 2,364
Cost of goods sold	1,265
Gross Profit	1,099
SG&A	95
Depreciation	154
EBIT	850
Interest expense	125
Earnings before taxes	725
Tax Expense	152
Net Income	$ 573

Question 1   Compute Zion Inc.'s (a) profit margin, (b) total asset turnover, and (c) equity multiplier for 2022. Compute the (d) ROE using those three inputs you computed in (a), (b), and (c).

(a)= 0.2423 (b) = 0.7312 (c) =1.3905 (d) = 0.2463

NI/S x S/A * A/E = ROE

Question 2   Calculate Zion Inc.'s time from when it pays cash for inventory until it collects cash for its sold inventory in 2022. Assume credit sales are 99% of total sales.

49.8260

CCC = (365/(COGS/AvgInv)) + (365/(CreditSales/AvgAR)) - (365/(COGS/AvgAP))

Question 3   Calculate (a) how many times over this firm can cover its interest expense in 2022. Calculate (b) its debt to equity ratio for 2022.

(a) = 8.03 (b) = 0.391

(a) Cash Cov = (EBIT + Dep)/IntExp, (b) D/E = Liab/Equity

Question 4   How many times did Zion Inc. sell through its inventory in (a) 2022 and (b) 2021? Assume the COGS in 2021 was $1283. Does the change from 2021 to 2022 show that the firm is getting (c) better or worse at its ability to move inventory?

(a) = 3.048 (b) = 3.192 (c) = worse

Inventory TO = COGS/INV, higher is better.

Question 5   Compute Zion Inc.'s (a) PE ratio for 2022, assuming it has 98 shares outstanding, and a price per share of $146. If this firm's industry competitors have a lower PE ratio, is this firm a (b) better or worse investment on the basis of its PE ratio, assuming all else equal?

24.981 worse

PE = Price/(NI/SharesOut)

Question 6   Calculate Zion Inc.'s (a) gross profit margins, (b) operating profit margins, and (c) net profit margins for 2022.

(a) = 46.49% (b) = 35.96% (c) = 24.23%

GP/Sales, EBIT/Sales, NI/Sales

Question 7   Assuming Zion Inc.'s 2023 sales will be 5% greater than 2022's sales, determine the firm's external financing needed in 2023, assuming a plowback of 25%.

$-5.688

EFN = (A/S)*ds - (L/S)*ds - (MS1 * b)

Question 8   What is the firm's (a) sustainable and (b) internal growth rate for 2022, assuming a plowback of 25%?

(a) = 6.56% (b) = 4.63%

Rate this problem set from 1 to 5, with 1 being "very easy" and 5 being "very difficult." (circle one)

           1   2   3   4   5

About how many minutes did you spend on this problem set? (circle one)

        <45   45   60   75   >75