

DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF KARACHI
 COURSE: BSCS-612 (FINANCIAL MANAGEMENT) (Time Allowed 150 Min)
 COURSE SUPERVISOR: FARHAN AHMED SIDDIQUI (TOTAL 100 MARKS)
 Name: _____ Seat No: BS101 _____

Problem 1) The balance sheet of Hardwood Furniture, Inc., reported the following: (10)

Stockholders' Investment [same as Stockholders' Equity]	(\$ Thousands)
Cumulative preferred stock	\$ 45
Common stock, \$1 par, authorized 40,000,000 shares; issued 16,000,000 shares	16,000
Additional paid-in capital	217,000
Retained earnings (Deficit)	(77,165)
Total stockholders' investment	\$155,880

Notes to the financial statements indicate that 9,000 shares of \$1.45 preferred stock with a stated value of \$5 per share were issued and outstanding. The preferred stock has a liquidation value of \$25 per share, and preferred dividends are in arrears for two years, including the current year. The additional paid-in capital belongs to common. On the balance sheet date, the market value of the Hardwood Furniture common stock was \$9.50 per share.

- What is the amount of the annual preferred dividend?
- What is the total paid-in capital of the company?
- Compute the book value per share of the common stock.

Problem 2) Complete the following balance sheet using the following information provided: (12)

Cash	\$907,916.7	Accounts payable	100,000
Accounts receivable	630,000	Long-term debt	428,333.3
Inventory	262,500	Total liabilities	418,333.3
Current assets	700,000	Common equity	
Net fixed assets	1,500,000	Total	\$2,100,000
Total	\$2,100,000		

Current ratio = 6.0	Total asset turnover = 1.0
Inventory turnover = 8.0	Average collection period = 30 days
Debt ratio = 20%	Gross profit margin = 15%

Problem 3)

(10)

Indicate the effects of the transactions listed in the following table on total current assets, current ratio & net income. Use (+) to indicate an increase, (-) to indicate a decrease, and (0) to indicate either no effect or an indeterminate effect.

No.	Statement	Total Current Assets	Current Ratio	Net Income

Notes to the financial statements indicate that 9,000 shares of \$1.45 preferred stock with a stated value of \$5 per share were issued and outstanding. The preferred stock has a liquidation value of \$25 per share, and preferred dividends are in arrears for two years, including the current year. The additional paid-in capital belongs to common. On the balance sheet date, the market value of the Hardwood Furniture common stock was \$9.50 per share.

- What is the amount of the annual preferred dividend?
- What is the total paid-in capital of the company?
- Compute the book value per share of the common stock.

Problem 2) Complete the following balance sheet using the following information provided: (12)

Cash	5907916.7	Accounts payable	100,000
Accounts receivable	6300000	Long-term debt	4283333.3
Inventory	262500	Total liabilities	4183333.3
Current assets	700000	Common equity	
Net fixed assets	1,500,000	Total	\$2,100,000
Total	\$2,100,000		

Current ratio = 6.0
 Inventory turnover = 8.0
 Debt ratio = 20%

Total asset turnover = 1.0
 Average collection period = 30 days
 Gross profit margin = 15%

Problem 3)

(10)

Indicate the effects of the transactions listed in the following table on total current assets, current ratio & net income. Use (+) to indicate an increase, (-) to indicate a decrease, and (0) to indicate either no effect or an indeterminate effect.

No.	Statement	Total Current Assets	Current Ratio	Net Income
1	Cash is acquired through issuance of additional common stock	+	+	+
2	Merchandise is sold for cash	+		+
3	Accounts receivable are collected.	+	+	+
4	A fixed asset is sold for more than book value	+	0	+
5	Merchandise is sold on credit	+	0	0
6	Payment is made to trade creditors for previous purchases.	0	-	-
7	A cash dividend is declared and paid	-	0	-
8	Cash is obtained through short-term bank loans	+	0	+
9	Current operating expenses are paid.	0	+	-
10	A fully depreciated asset is retired.	0	0	0

Problem 4)

Accountants for Ross Retail Company have assembled the following data for the year ended December 31, 20X4:

Current Accounts (All Result from Operations)	December 31,	
	20X4	20X3
Current assets:		
Cash and cash equivalents	\$49,600 (14,500)	\$34,800
Accounts receivable	70,100 3600	73,700
Inventories	90,600 5900	96,500
Prepaid expenses	3,200 1100	2,100
Current liabilities:		
Notes payable (for inventory purchases)	\$36,300 500	\$36,800
Accounts payable	72,100 4600	67,500
Income tax payable	5,900 900	6,800
Accrued liabilities	28,300 5100	23,200

Transaction data for 20X4:

Stock dividends	\$ 12,600	Payment of cash dividends	\$ 48,300
Collection of loan	10,300	Issuance of long term debt to borrow cash	71,000
Depreciation Exp	19,200	Net Income	61,500
Acquisition of Equipment	69,000	Issuance of preferred stock for cash	36,200
Payment of long term debt by issuing common stock	89,400	Sale of long term investment	12,200
Acquisition of long term investment	44,800	Amortization Exp	1,100
Acquisition of building by issuing long term N/P	118,000	Payment of long term debt	47,800
Gain on sale of investment	3,500		

Required Prepare Ross Retail Company's statement of cash flows. (15)

Problem 5)

(10)

The Aubey Coffee Company is evaluating the within plant distribution system for its new roasting, g packing plant. The two alternatives are (1) a conveyor system with a high initial cost but low annual opera and (2) several forklift trucks, which cost less but have considerably higher operating costs. The c construct the plant has already been made and the choice here will have no effect on the overall rever project. The cost of capital for the plant is 8 percent, and the project expected net costs are listed in the tab

Year	Expected Net Costs	
	Conveyor	Forklift
0	(\$500,000)	(\$200,000)
1	(120,000)	(160,000)
2	(120,000)	(160,000)
3		(160,000)

Current liabilities:

Notes payable (for inventory purchases)
Accounts payable
Income tax payable
Accrued liabilities

\$36,300 500 330,000
72,100 4600 67,500
5,900 900 6,800
28,300 5100 23,200

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4600

Transaction data for 20X4:

Stock dividends	\$ 12,600	Payment of cash dividends	\$ 48,300
Collection of loan	10,300	Issuance of long term debt to borrow cash	71,000
Depreciation Exp	19,200	Net Income	61,500
Acquisition of Equipment	69,000	Issuance of preferred stock for cash	36,200
Payment of long term debt by issuing common stock	89,400	Sale of long term investment	12,200
Acquisition of long term investment	44,800	Amortization Exp	1,100
Acquisition of building by issuing long term N/P	118,000	Payment of long term debt	47,800
Gain on sale of investment	3,500		

Required Prepare Ross Retail Company's statement of cash flows. (15)

(10)

Problem 5)

The Aubey Coffee Company is evaluating the within plant distribution system for its new roasting, grinding & packing plant. The two alternatives are (1) a conveyor system with a high initial cost but low annual operating costs, and (2) several forklift trucks, which cost less but have considerably higher operating costs. The decision to construct the plant has already been made and the choice here will have no effect on the overall revenues of the project. The cost of capital for the plant is 8 percent, and the project expected net costs are listed in the table.

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s something.

Year	Expected Net Costs	
	Conveyor	Forklift
0	(\$500,000)	(\$200,000)
1	(120,000)	(160,000)
2	(120,000)	(160,000)
3	(120,000)	(160,000)
4	(120,000)	(160,000)
5	(120,000)	(160,000)

- What is the net present value of costs of each alternative? Which method should be chosen?
- What is the IRR of each alternative?

(10)

Problem 6)

The Brenmar Sales Company had a gross profit margin (gross profits/sales) of 30 percent and sales of \$9 million last year. Seventy-five percent of the firm's sales are on credit and the remainder are cash sales. Brenmar's current assets equal \$1.5 million, its current liabilities equal \$300,000, and it has \$100,000 in cash plus marketable securities.

- If Brenmar's accounts receivable are \$562,500, what is its average collection period?
- If Brenmar reduces its average collection period to 20 days, what will be its new level of accounts receivable?
- Brenmar's inventory turnover ratio is nine times. What is the level of Brenmar's inventories?

Problem 7)**(9)**

Following is information about TramCo before several stock transactions:

Common Stock, \$10 par, 100,000 shares authorized, 94,000 issued, 90,000 outstanding	\$ 940,000	10 x 94000
Paid-In Capital in Excess of Par on Common Stock	416,000	
Retained Earnings	1,500,000	
Less: Treasury Stock, 4000 shares	<u>50,800</u>	
Total Stockholders Equity	\$2,805,200	

Three stock transactions took place after the above account balances were recorded:

There was a 4-for-1 stock split.

There was a 5% stock dividend.

The Treasury Stock was sold for \$62,000.

After these three transactions are properly recorded, Find out the numbers of common shares authorized, issued, outstanding, and in treasury stock.

Problem 8)**(14)**

Use the following information to answer questions.

The income statement and additional data for Mosier Company for the year ended December 31, 2011, are as follows:

Sales revenue	\$400,000
Cost of goods sold	\$165,000
Salary expense	\$ 70,000
Depreciation expense	\$ 55,000
Rent expense	\$ 20,000
Interest expense	\$ 10,000
Income tax expense	\$ 18,000
Net income	\$ 62,000

Accounts receivable decreased by \$12,000. Inventories increased by \$6,000 and accounts payable decreased by \$2,000. Salary payable increased by \$8,000. Prepaid rent increased by \$4,000. Interest expense and income tax expense equal their cash amounts. Mosier Company uses the direct method in their statement of cash flows.

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Three stock transactions took place after the above account balances were recorded:
There was a 4-for-1 stock split.
There was a 5% stock dividend.
The Treasury Stock was sold for \$62,000.
After these three transactions are properly recorded, Find out the numbers of common shares authorized, issued, outstanding, and in treasury stock.

Problem 8)

Use the following information to answer questions.

(14)

The income statement and additional data for Mosier Company for the year ended December 31, 20X2 is as follows:

Sales revenue	\$400,000
Cost of goods sold	\$165,000
Salary expense	\$ 70,000
Depreciation expense	\$ 55,000
Rent expense	\$ 20,000
Interest expense	\$ 10,000
Income tax expense	\$ 18,000
Net income	\$ 62,000

Accounts receivable decreased by \$12,000. Inventories increased by \$6,000 and accounts payable decreased by \$2,000. Salary payable increased by \$8,000. Prepaid rent increased by \$4,000. Interest expense and income tax expense equal their cash amounts. Mosier Company uses the direct method for their statement of cash flows.

- How much cash did Mosier collect from customers during 20X2?
- How much did Mosier pay to suppliers in 20X2?
- How much did Mosier pay to employees in 20X2?
- How much did Mosier pay for depreciation in 20X2?
- How much did Mosier pay for rent in 20X2?
- What was Mosier's net cash flows from operating activities for the year 20X2?
- If Mosier Company reports cash flow from operating activities using the indirect method, it will add to or subtract from net income changes in current assets and liabilities. Which of the following have changes that would be added to net income to get to cash flows from operating activities?
 - Accounts Receivable, Salary Payable, Accounts Payable
 - Inventory, Accounts Payable, Prepaid Rent
 - Accounts Receivable, Salary Payable
 - Salary Payable, Accounts Payable

Problem 9)

(10)

Driemann Corp. completed the following transactions during the current year:

- April 18 Declared a cash dividend on the 5%, \$100 par preferred stock (1,000 shares outstanding). Declared a \$0.20 per share dividend on the 100,000 shares of common stock outstanding. The date of record is May 2, and the payment date is May 23.
- May 23 Paid the cash dividends.
- June 10 Split common stock 2 for 1 by calling in the 100,000 shares of \$10 par common and issuing new stock in its place.
- July 30 Distributed a 10% stock dividend on the common stock. The market value of the common stock was \$15 per share.
- Oct. 26 Purchased 2,500 shares of the company's own common stock at \$14 per share.
- Nov. 8 Sold 950 shares of treasury common stock for \$17 per share.

Required -- Record the transactions in Driemann's general journal.

Financial Ratios

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

$$\text{Acid-test ratio} = \frac{\text{current assets} - \text{inventories}}{\text{current liabilities}}$$

$$\text{Average collection period} = \frac{\text{accounts receivable}}{\text{daily credit sales}}$$

$$\text{Accounts receivable turnover} = \frac{\text{credit sales}}{\text{accounts receivable}}$$

$$\text{Inventory turnover} = \frac{\text{cost of goods sold}}{\text{inventory}}$$

$$\text{Operating income return on investment} = \frac{\text{operating income}}{\text{total assets}}$$

$$\text{Operating profit margin} = \frac{\text{operating income}}{\text{sales}}$$

$$\text{Inventory turnover} = \frac{\text{cost of goods sold}}{\text{inventory}}$$

$$\text{Fixed assets turnover} = \frac{\text{sales}}{\text{net fixed assets}}$$

$$\text{Debt ratio} = \frac{\text{total debt}}{\text{total assets}}$$

$$\text{Times interest earned} = \frac{\text{operating income}}{\text{interest expense}}$$

$$\text{Return on equity} = \frac{\text{net income}}{\text{common equity}}$$

$$\text{Accounts receivable turnover} = \frac{\text{sales}}{\text{accounts receivable}}$$

$$\text{ROA} = \text{NI} / \text{Total Assets}$$

$$\text{Total asset turnover} = \frac{\text{sales}}{\text{total assets}}$$