BUSI 2001 – Intermediate Accounting I
Final Exam Review

Problem 1 – FVTOCI Investments

During 20x3, an entity purchased three equity investments and classifies them as fair value through other comprehensive Income (FVTOCI). The cost of the investments and their fair values at December 31, 20x3 is as follows:

	Original Cost	*Fair Value*
A	$ 45,000	$ 62,000
B	100,000	80,000
C	140,000	155,000
	$285,000	$297,000

During 20x4, the following transactions took place (all relative to the FVTOCI investment account):

Purchased D for $240,000
Purchased E for $125,000
Sold A for $72,000

During 20x5, the following transactions took place:

Purchased F for $400,000
Sold C for $137,000
Sold E for $185,000

The fair value at December 31, 20x4 and 20x5 are as follows:

	Dec 31 20x4	*Dec 31 20x5*
B	$95,000	$102,000
C	150,000	-
D	215,000	220,000
E	163,000	
F	-	350,000

The entity's profit for the years ended December 31, 20x3, 20x4 and 20x5 was $430,000, $320,000 and $560,000 respectively.

Required –

(a) Prepare all journal entries to reflect all of the above transactions.
(b) Prepare the bottom portion of the statement of comprehensive income for the years ended December 31, 20x3, 20x4 and 20x5.

Problem 2 – Statement of Cash Flow

The Jerome Company's partial comparative balance sheets for the years ended December 31, 20x4 and 20x5 and its income statement for the year ended December 31, 20x5 are as follows:

Jerome Company
Balance Sheets (Partial)
As at December 31, 20x5 (with comparative figures for 20x4)

	20x5	***20x4***
ASSETS		
Current Assets		
Cash	$ 18,900	$ 38,500
Accounts receivable	177,000	171,000
Allowance for doubtful accounts	(12,000)	(14,500)
FVTOCI Investments	235,000	185,000
FVTPL Investments	55,000	75,000
Inventory	173,000	148,000
Prepaid insurance	18,000	16,000
	664,900	619,000
Land	200,000	150,000
Buildings and equipment	1,462,000	1,270,000
Accumulated depreciation	(550,000)	(560,000)
	1,112,000	860,000
	$1,776,900	$1,479,000
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Short term bank loans	$ 20,000	$ -
Accounts payable and accrued liabilities	102,919	117,800
Unearned revenues	14,500	18,900
Income taxes payable	16,700	14,600
Dividends payable	35,000	40,000
	189,119	191,300
Shareholders' Equity		
Retained earnings	673,545	542,225
Accumulated Other Comprehensive Income		
FVTOCI Investments	6,600	(20,000)

Jerome Company
Statement of Comprehensive Income
For the year ended December 31, 20x5

Sales		$2,650,000
Expenses		
Cost of goods sold	$1,560,000	
Operating expenses	647,000	
Bad debt expense	3,800	
Interest expense	42,000	
Income tax expense	154,400	2,407,200
		242,800
Gain on sale of equipment		15,000
FV Adjustment on FVTPL Investments		4,400
Gain on sale of FVTPL Investments		6,000
Profit for the year		268,200
Fair value adjustments - FVTOCI Investments	14,400	
Realized losses on FVTOCI Investments recycled to Retained Earnings	12,200	26,600
Comprehensive Income		$294,800

Additional Information

1. Depreciation expense is included in operating expenses.
2. The company acquired capital assets during the year.
3. The company sold a capital asset for proceeds of $50,000. The asset was 75% depreciated at the time of sale.
4. The short-term bank loans are considered cash and cash equivalents.
5. Fair value though profit and loss investments with a carrying value of $60,000 were sold in 20x5.
6. FVTOCI investments with an original cost of $47,200 were sold in 20x8 for proceeds of $35,000. The investments had a carrying value of $40,000 at the beginning of 20x8.

Required –

a. Calculate the cash flow from operations section of the Statement of Cash Flow using (i) the indirect and (ii) the direct method.
b. Calculate cash flow from investing activities.
c. How much dividends were paid during 20x5?

Question 3 – Discontinued Operations

On October 31, 20x2 the board of directors passed a resolution to put up one of the entity's division up for sale. The assets of the division had a carrying value of $4,000,000 at December 31, 20x2 after deducting a full year's worth of depreciation expense of $600,000. The entity estimated that the division's assets could be sold for $3,600,000 less a commission of 6% of the sales price.

The income statement of the entity before consideration of the treatment of the discontinued operation for the year ended December 31, 20x4 is as follows:

Revenues	$95,000,000
Cost of goods sold	(40,000,000)
Operating expenses	(35,000,000)
Depreciation expense	(5,500,000)
Income taxes (30%)	(4,350,000)
Profit for the year	$10,150,000

The income statement for the discontinued division was:

Revenues	$15,000,000
Cost of goods sold	(10,000,000)
Operating expenses	(6,000,000)
Depreciation expense	(600,000)
Income tax recovery (30%)	480,000
Loss for the year	($1,120,000)

Required -

(a) Prepare a revised statement of income for the year ended December 31, 20x4.

(b) Assume that the division was sold in 20x5 for total proceeds of $3,900,000. The income statement of the division to the date of sale was as follows:

Revenues	$6,500,000
Cost of goods sold	(4,500,000)
Operating expenses	(2,900,000)
Depreciation expense	-
Income tax recovery (35%)	315,000
Loss for the year	($585,000)

What is the gain or loss on discontinued operations that will appear on the entity's income statement for the year ended December 31, 20x5?

Question 4 – Asset Retirement Obligation

A publicly accountable entity spent a total of $35,000,000 to set up a mining operation in northern Ontario during 20x0. The mine started operations on January 2, 20x1 and is expected to operate for a total of 25 years. At the end of its useful life, the property will have to be restored. At December 31, 20x1, management's best estimate of the cost of decommissioning the mine in 20x26 is $15,000,000. Assume a discount rate of 6%.

Required –

(a) Prepare the journal entries to reflect the above transactions for 20x0, 20x1 and 20x2.

(b) During 20x6, the estimate of the decommissioning costs changes to $20,000,000. Prepare all journal entries related to the mining property for 20x6.

(c) During 20x24, because of advances in technology, the decommissioning costs are now estimated to be $5,000,000. Prepare all journal entries related to the mining property for 20x24 and 20x25.

(d) Assume now that the entity is a private company subject to ASPE. The estimates to decommission the site are the following (note that these are not future costs, but costs to decommission the site on each of the dates provided):

Dec 31, 20x0	$6,000,000
Dec 31, 20x1	8,500,000
Dec 31, 20x2	7,200,000

Prepare all journal entries related to the mining property for 20x0, 20x1 and 20x2.

Question 5 - % of completion

A shipyard entered into a contract to build a nuclear aircraft carrier for the Canadian Navy for a total fixed price of $1 billion dollars. Contract data for the years 20x1 through to 20x4 (the year the project was complete) is as follows:

	20x1	**20x2**	**20x3**	**20x4**
Cost incurred to date	$150,000,000	$450,000,000	$850,000,000	$1,150,000,000
Estimated costs to complete	650,000,000	450,000,000	250,000,000	-

Required –

Calculate (i) the revenues and (ii) the profits to be realized on the contract for each year assuming that the percentage of completion method is used.

SOLUTION

Problem 1

(a)	20x3	FVTOCI Investments	$285,000	
		Cash		$285,000
	Dec 31, 20x3	FVTOCI Investments	12,000	
		OCI		12,000
		Year-end FV Adjustment		
	20x4	FVTOCI Investments	365,000	
		Cash		365,000
		Purchase of D & E		
		Sale of A -		
		FVTOCI Investments	10,000	
		OCI		10,000
		FV Adjustment: $72,000 – 62,000		
		Cash	72,000	
		FVTOCI Investments		72,000
		OCI	27,000	
		Retained Earnings		27,000
		Realized gain transferred to retained earnings: $72,000 – 45,000		
	Dec 31, 20x4	FVTOCI Investments	23,000	
		OCI		23,000
		Year-end FV Adjustment		

	Carrying Value	*Fair Value*
B	$80,000	$95,000
C	155,000	150,000
D	240,000	215,000
E	125,000	163,000
	$600,000	$623,000

20x5	FVTOCI Investments	400,000	
	Cash		400,000
	Purchase of F		
	Sale of C -		
	OCI	13,000	
	FVTOCI Investments		13,000
	FV Adjustment: $150,000 – 137,000		
	Cash	137,000	
	FVTOCI Investments		137,000
	Retained earnings	3,000	
	OCI		3,000
	Realized loss: $137,000 – 140,000		
	Sale of E -		
	FVTOCI Investments	22,000	
	OCI		22,000
	FV Adjustment: $185,000 – 163,000		
	Cash	185,000	
	FVTOCI Investments		185,000
	OCI	60,000	
	Retained Earnings		60,000
	Realized gain: $185,000 – 125,000		
Dec 31, 20x5	OCI	38,000	
	FVTOCI Investments		38,000

	Carrying Value	*Fair Value*
B	$95,000	$102,000
D	215,000	220,000
F	400,000	350,000
	$710,000	$672,000

	FVTOCI Investments			A•OCI		
20x3	$285,000					
	12,000				12,000	20x3 FV Adj
	297,000				12,000	
20x4	365,000					
	10,000	72,000	Real Gain - A	27,000	10,000	FV Adj - A
	23,000				23,000	20x4 FV Adj
	623,000				18,000	
20x5	400,000					
		13,000	FV Adj - C	13,000	3,000	Real Loss - C
		137,000				
	22,000		Real Gain - E	60,000	22,000	FV Adj - E
		185,000				
		38,000	20x5 FV Adj	38,000		
	$672,000			$68,000		

Check:

		Original Cost	*Fair Value*
20x4	B	$100,000	$ 95,000
	C	140,000	150,000
	D	240,000	215,000
	E	125,000	163,000
		$605,000	$623,000
20x5	B	$100,000	$102,000
	D	240,000	220,000
	F	400,000	350,000
		$740,000	$672,000

Analysis of FVTOCI Account (Optional):

	A	B	C	D	E	F	Total
20x3 purchases	45,000	100,000	140,000				285,000
20x3 FV Adj	17,000	-20,000	15,000				12,000
20x3 Bal	62,000	80,000	155,000				297,000
20x4 purchaaes				240,000	125,000		365,000
FV Adj - A	10,000						10,000
Sale A	-72,000						-72,000
20x4 FV Adj		15,000	-5,000	-25,000	38,000		23,000
20x4 Balance	0	95,000	150,000	215,000	163,000	0	623,000
20x5 Purchases						400,000	400,000
FV Adj - C			-13,000				-13,000
Sale C			-137,000				-137,000
FV Adj - E					22,000		22,000
Sale - E					-185,000		-185,000
20x5 FV Adj		7,000		5,000		-50,000	-38,000
	0	102,000	0	220,000	0	350,000	672,000

Statement of Comprehensive Income Presentation -

	20x3	***20x4***	***20x5***
Profit for the period	$430,000	$320,000	$560,000
Other Comprehensive Income -			
Fair Value Gains (losses) on FVTOCI Investments	12,000	33,000	(29,000)
Realized (gains) losses recycled to Retained Earnings	-	(27,000)	(57,000)
	12,000	6,000	(86,000)
Comprehensive Income	$442,000	$326,000	$474,000

Problem 2

a. Cash flow from operations (indirect)

Net income	$268,200
Adjust for non-cash items	
Depreciation (Note 1)	95,000
Gain on sale of equipment	(15,000)
Unrealized gain on FVTPL Investments	(4,400)
Gain on sale of FVTPL Investments	(6,000)
Adjust for changes in non-cash working capital items	
Increase in accounts receivable ($165,000 – 156,500)	(8,500)
Increase in inventory	(25,000)
Increase in prepaid insurance	(2,000)
Decrease in accounts payable and accrued liabilities	(14,881)
Decrease in unearned revenues	(4,400)
Increase in income taxes payable	2,100
	$285,119

Cash flow from operations – Direct

Cash collected from customers (Note 2)	$2,633,300
Cash paid to suppliers ($1,560,000 COGS + 25,000 Increase in Inventory + 14,881 Decrease in A/P & Accrued Liabilities)	(1,599,881)
Cash paid for operating expenses ($647,000 + 2,000 Increase in Ppd Insurance - 95,000 Depreciation Expense)	(554,000)
Cash paid for interest	(42,000)
Cash paid for income taxes ($154,400 - 2,100 Increase in Income Taxes Payable)	(152,300)
	$285,119

b. Cash flow from investing

Purchase of FVTOCI Investments (Note 3)	($70,600)
Proceeds on sale of FVTOCI Investments	35,000
Purchase of FVTPL Investments (Note 4)	(35,600)
Proceeds on sale of FVTPL Inv. ($60,000 Carrying Value + 6,000 Gain)	66,000
Purchase of land	(50,000)
Proceeds on sale of equipment	50,000
Purchase of buildings and equipment (Note 5)	(332,000)
	($337,200)

c.

Retained earnings, beginning of year	$542,225
Net income	268,200
Realized loss on FVTOCI Investments	(12,200)
Dividends declared	?
Retained earnings, end of year	$673,545

Dividend declared	$124,680
Add decrease in dividends payable	5,000
Cash dividends paid	$129,680

Note 1 – Depreciation expense

We are told that the company sold a capital asset for proceeds of $50,000. The income statement tells us that the gain on sale of equipment was $15,000. Therefore, the net book value of the asset sold is $50,000 – 15,000 = $35,000. If the asset was 75% depreciated, then the original cost of the asset was therefore $35,000 / .25 = $140,000. The accumulated depreciation was $140,000 x 75% = 105,000. We can now reconcile the accumulated depreciation account:

Accumulated depreciation, beginning of year	$560,000
Depreciation expense	?
Accumulated depreciation on assets sold	(105,000)
Accumulated depreciation, beginning of year	$550,000

Depreciation expense = $95,000

Note 2 - Accounts Receivable

Allowance for doubtful accounts, beginning	$14,500
Add bad debt expense	3,800
Less accounts written off	?
Allowance for doubtful accounts, end	$12,000

Accounts Written off = $6,300

Accounts Receivable, beginning	$171,000
Less write-offs	6,300
	164,700
Sales	2,650,000
Cash Collections from customers	?
Accounts Receivable, ending	$177,000

Cash Collections from Customers = $2,637,700
- 4,400 Decrease in Unearned Revenues = $2,633,300

Note 3 - FVTOCI

FVTOCI Investments, beginning	$185,000
Less Adjustment to market on investments sold ($40,000 - 35,000)	(5,000)
Less Proceeds on investments sold	(35,000)
Add: Year-end adjustment to market value (see A•OCI account analysis)	19,400
Add: new investments purchased	?
AFS Investments, ending	$235,000

New investments purchased = $70,600

A•OCI - beginning	$20,000 dr.
Adjustment to market on investments sold ($40,000 - 35,000)	5,000 dr.
Removal of realized loss on investments sold ($35,000 - 47,200)	12,200 cr.
Year-end adjustment to market value	?
A•OCI - ending	$6,600 cr.

Year-end adjustment to market value = $19,400 cr.

Note 4 - FVPL Investments

FVPL Investments, beginning	$75,000
Less carrying value of investments sold	(60,000)
Add Adjustment to market at year-end	4,400
Add New investments purchased	?
FVPL Investments, end	$55,000

New investments purchased = $35,600

Note 5 – Purchase of Building and Equipment

Building and equipment – beginning of year	$1,270,000
Purchase	?
Cost of equipment sold (see note 1)	(140,000)
Building and equipment – end of year	$1,462,000

Purchase of building and equipment = $332,000

Problem 3

(a)	Carrying value of assets on date of sale		
	$4,000,000 + (600,000 x 2/12 [Dep after Oct 31])		
	= $4,000,000 + 100,000		$4,100,000
	Net realizable value: $3,600,000 x 0.94		3,384,000
	Impairment loss		716,000
	Loss on operations: $15,000,000 [Revenues] – 10,000,000 [COGS]		
	– 6,000,000 [Op Expenses] – 500,000 [Dep to Oct 31]		1,500,000
	Loss from discontinued operations before taxes		2,216,000
			x 0.7
	After-tax loss		$1,551,200
	Revised Statement of Income -		
	Revenues ($95,000,000 – 15,000,000)		$80,000,000
	Cost of goods sold ($40,000,000 – 10,000,000)		(30,000,000)
	Operating expenses ($35,000,000 – 6,000,000)		(29,000,000)
	Depreciation expense ($5,500,000 – 600,000)		(4,900,000)
	Profit from continuing operations before tax		16,100,000
	Income tax expense		4,830,000
	Profit from continuing operations after tax		11,270,000
	Loss from discontinued operations		1,551,200
	Profit for the year		$ 9,718,800
(b)	Loss from operations: $6,500,000 [Revenues] – 4,500,000 [COGS]		
	– 2,900,000 [Op Expenses]		$900,000
	Net proceeds on sale of division: $3,900,000 x 0.94	$3,666,000	
	Less carrying value of assets	3,384,000	
	Gain on sale	282,000	(282,000)
			618,000
			x .65
	Loss from discontinued operations		$401,700

Problem 4

(a) Present Value of ARO:
N = 25 I = 6 FV = $15,000,000
PV = 3,494,979

Dec 31, 20x0	Mine	$38,494,979	
	Cash		$35,000,000
	Asset Retirement Obligation		3,494,979
Dec 31, 20x1	Interest expense	209,699	
	Asset Retirement Obligation		209,699
	$3,494,979 x 6%		
	Depreciation expense	1,539,799	
	Accumulated depreciation		1,539,799
	$38,494,979 / 25		
Dec 31, 20x2	Interest expense	222,281	
	Asset Retirement Obligation		222,281
	($3,494,979 + 209,699) x 6%		
	Depreciation expense	1,539,799	
	Accumulated depreciation		1,539,799

(b) PV of ARO at the beginning of 20x6 becomes:
N = 20 I = 6 FV = 20,000,000
PV = $6,236,095

PV of ARO using original estimates:
N = 20 I = 6 FV = 15,000,000
PV = $4,677,071 Increase of $1,559,024

NBV of mine at beginning of 20x6: $38,494,979 x 20/25 = $30,795,983

Jan 2, 20x6	Mine	$1,559,024	
	Asset retirement obligation		$1,559,024
Dec 31, 20x6	Interest expense	374,166	
	Asset retirement obligation		374,166
	$6,236,095 x 6%		
	Depreciation expense	1,617,750	
	Accumulated depreciation		1,617,750
	($30,795,983 + 1,559,024) / 20		
	= 32,355,007 / 20		

(c) PV of ARO at the beginning of 20x24 becomes:
N = 2 I = 6 FV = 5,000,000
PV = $4,449,982

PV of ARO using revised 20x6 estimates:
N = 2 I = 6 FV = 20,000,000
PV = $17,799,929 Decrease of $13,349,947

Net book value of mine at beginning of 20x24:
$32,355,007 x 2/20 = $3,235,500

Jan 2, 20x24	ARO	$13,349,947	
	Mine		$3,235,500
	Gain on revision of ARO		10,114,447
Dec 31, 20x24	Interest expense	266,999	
	Asset Retirement Obligation		266,999
	$4,449,982 x 6%		
Dec 31, 20x25	Interest expense	283,019	
	Asset Retirement Obligation		283,019
	($4,449,982 + 266,999) x 6%		

(d)	Dec 31, 20x0	Mine	41,000,000	
		Cash		35,000,000
		Asset Retirement Obligation		6,000,000
	Dec 31, 20x1	Accretion expense	360,000	
		Asset Retirement Obligation		360,000
		$6,000,000 x 6%		
		Mine	2,140,000	
		Asset Retirement Obligation		2,140,000
		Depreciation expense	1,640,000	
		Accumulated depreciation		1,640,000
		$41,000,000 / 25		
	Dec 31, 20x2	Accretion expense	510,000	
		Asset Retirement Obligation		510,000
		$8,500,000 x 6%		
		Asset Retirement Obligation	1,810,000	
		Mine		1,810,000
		Depreciation expense	1,729,167	
		Accumulated depreciation		1,729,167
		$41,500,000 / 24		

Question 5

20x1 % of completion = 150,000,000 / (150,000,000 + 650,000,000)
= 150,000,000 / 800,000,000 = 18.75%
Revenues = $1,000,000,000 x 18.75% = $187,500,000
Profit = $200,000,000 x 18.75% = $37,500,000

20x2 % of completion = 450,000,000 / (450,000,000 + 450,000,000)
= 450,000,000 / 900,000,000 = 50%
Revenues = $1,000,000,000 x (0.50 – 0.1875) = $312,500,000
Cumulative profit to end of 20x2 = $100,000,000 x 0.50 = $50,000,000
Profit to be recognized in 20x2 = $50,000,000 – 37,500,000 = $12,500,000

20x3 % of completion = 850,000,000 / (850,000,000 + 250,000,000)
= 850,000,000 / 1,100,000,000 = 77.273%
Revenues = $1,000,000,000 x (0.77273 – 0.50) = $272,727,000
Cumulative loss to be recognized to the end of 20x3 = $100,000,000
Loss to be recognized in 20x3 = $100,000 + 50,000 = $150,000,000

20x4 % of completion = 100%
Revenues = $1,000,000,000 x (1.00 – 0.77273) = $227,273,000
Cumulative loss to be recognized to the end of 20x4 = $150,000,000
Loss to be recognized in 20x4 = $150,000,000 - 100,000,000 = $50,000,000

Summary – (in thousands)

	20x1	**20x2**	**20x3**	**20x4**	**Total**
Revenues	$187,500	$312,500	$272,727	$227,273	$1,000,000
Profit	37,500	12,500	(150,000)	(50,000)	(150,000)