Exam 4 Chapters 13-15 Garrison 14ed

Student: ____

1. If the internal rate of return is used as the discount rate in computing net present value, the net present value will be:

   A. positive.
   B. negative.
   C. zero.
   D. unknown.

2. An investment project for which the net present value is $300 would result in which of the following conclusions?

   A. The net present value is too small; the project should be rejected.
   B. The rate of return of the investment project is greater than the required rate of return.
   C. The net present value method is not suitable for evaluating this project; the internal rate of return method should be used.
   D. The investment project should only be accepted if net present value is zero; a positive net present value indicates an error in the estimates associated with the analysis of this investment.

3. If a company has computed the project profitability index of an investment project as 0.15, then:

A. the project's internal rate of return is less than the discount rate.

B. the project's internal rate of return is greater than the discount rate.

C. the project's internal rate of return is equal to the discount rate.

D. the relation between the rate of return and the discount rate is impossible to determine from the given data.

4. If investment A has a payback period of 3 years and investment B has a payback period of 4 years, then:

A. A has a higher net present value than B.

B. A has a lower net present value than B.

C. A and B have the same net present value.

D. the relation between investment A's net present value and investment B's net present value cannot be determined from the given information.

5. Which one of the following statements about the payback method of capital budgeting is correct?

A. The payback method does not consider the time value of money.

B. The payback method considers cash flows after the payback has been reached.

C. The payback method uses discounted cash flow techniques.

D. The payback method will lead to the same decision as other methods of capital budgeting.

6. (Ignore income taxes in this problem.) An investment of P dollars now will yield cash inflows of $3,000 at the end of the first year and $2,000 at the end of the fourth year. If the internal rate of return for this investment is 20%, then the value of P is:

A. $3,463

B. $2,499

C. $964

D. $4,185

7. (Ignore income taxes in this problem.) The Baker Company purchased a piece of equipment with the following expected results:

Useful life	7 years
Yearly net cash inflow	$50,000
Salvage value	$0
Internal rate of return	20%
Discount rate	16%

The initial cost of the equipment was:

A. $300,100

B. $180,250

C. $190,600

D. Cannot be determined from the given information.

8. (Ignore income taxes in this problem.) Mercredi, Inc., is considering investing in automated equipment with a ten-year useful life. Managers at Highpoint have estimated the cash flows associated with the tangible costs and benefits of automation, but have been unable to estimate the cash flows associated with the intangible benefits. Using the company's 14% required rate of return, the net present value of the cash flows associated with just the tangible costs and benefits is a negative $182,560. How large would the annual net cash inflows from the intangible benefits have to be to make this a financially acceptable investment?

A. $18,256

B. $26,667

C. $35,000

D. $38,000

9. (Ignore income taxes in this problem) The management of Serpas Corporation is considering the purchase of a machine that would cost $180,000, would last for 5 years, and would have no salvage value. The machine would reduce labor and other costs by $46,000 per year. The company requires a minimum pretax return of 13% on all investment projects. The net present value of the proposed project is closest to:

A. $27,138

B. $50,000

C. -$18,218

D. -$33,565

10. (Ignore income taxes in this problem.) Mcclam, Inc., is considering the purchase of a machine that would cost $100,000 and would last for 9 years. At the end of 9 years, the machine would have a salvage value of $23,000. The machine would reduce labor and other costs by $19,000 per year. Additional working capital of $2,000 would be needed immediately. All of this working capital would be recovered at the end of the life of the machine. The company requires a minimum pretax return of 13% on all investment projects. The net present value of the proposed project is closest to:

A. $3,833

B. $5,167

C. -$2,492

D. $11,514

11. The discount rate must be specified in advance for which of the following methods?

	Net Present Value	Internal Rate of Return
A)	yes	yes
B)	yes	no
C)	no	no
D)	no	yes

A. Option A

B. Option B

C. Option C

D. Option D

12. (Ignore income taxes in this problem.) The management of Dewitz Corporation is considering a project that would require an initial investment of $65,000. No other cash outflows would be required. The present value of the cash inflows would be $72,800. The profitability index of the project is closest to:

A. 0.12

B. 1.12

C. 0.88

D. 0.11

13. (Ignore income taxes in this problem.) The management of Dittrick Corporation is considering the following three investment projects:

	Project I	Project J	Project K
Investment required	$13,000	$41,000	$93,000
Present value of cash inflows.........	$13,520	$47,150	$103,230

Rank the projects according to the profitability index, from most profitable to least profitable.

A. I, J, K

B. K, J, I

C. J, K, I

D. I, K, J

14. (Ignore income taxes in this problem.) The Higgins Company has just purchased a piece of equipment at a cost of $120,000. This equipment will reduce operating costs by $40,000 each year for the next eight years. This equipment replaces old equipment which was sold for $8,000 cash. The new equipment has a payback period of:

A. 8.0 years

B. 2.8 years

C. 10.0 years

D. 3.0 years

15. (Ignore income taxes in this problem.) Rogers Company is studying a project that would have a ten-year life and would require an $800,000 investment in equipment which has no salvage value. The project would provide net operating income each year as follows for the life of the project:

Sales		$500,000
Less cash variable expenses		100,000
Contribution margin		400,000
Less fixed expenses:		
Fixed cash expenses	$200,000	
Depreciation expenses	80,000	280,000
Net operating income		$120,000

The company's required rate of return is 8%. What is the payback period for this project?

A. 3 years

B. 6.67 years

C. 2 years

D. 4 years

16. If an investment has cash outflows of Q dollars at the end of each year for three years, then the present value of these cash outflows under a 10% rate of return will be:

A. greater than under a 12% rate of return.

B. less than under a 12% rate of return.

C. equal to that under a 12% rate of return.

D. unknown because it depends on the size of Q.

17. (Ignore income taxes in this problem.) In order to receive $12,000 at the end of three years and $10,000 at the end of five years, how much must be invested now if you can earn 14% rate of return?

A. $12,978

B. $8,100

C. $13,290

D. $32,054

18. Ring Corporation uses a discount rate of 12% and has a tax rate of 30%. The following cash flows occur in the third year of an equipment selection investment project:

Net operating cash inflows	$90,000
Depreciation deduction	$72,000

The total after-tax present value of the cash flows is closest to:

A. $10,152

B. $34,603

C. $60,235

D. $79,459

19. Which of the following would be considered a cash outflow in the investing activities section of the statement of cash flows?

A. Dividends paid to the company's own stockholders.

B. Payment of interest to a lender.

C. Purchase of equipment.

D. Retirement of bonds payable.

20. In a statement of cash flows, which of the following would be classified as an operating activity?

A. The purchase of equipment.

B. Dividends paid to the company's own common stockholders.

C. Tax payments to governmental bodies.

D. The cash paid to retire bonds payable.

21. In a statement of cash flows, all of the following would be classified as financing activities except:

A. the collection of cash related to a loan made to another entity.

B. the payment of a cash dividend on the company's own common stock.

C. the cash paid to retire bonds payable.

D. the sale of the company's own common stock for cash.

22. If Thomson Company did not issue any bonds payable during the year and its bonds payable account decreased by $200,000 over the course of a year, then this amount would be shown on the company's statement of cash flows prepared under the indirect method as:

A. a cash inflow of $200,000 under investing activities.

B. a cash outflow of $200,000 under investing activities.

C. a cash inflow of $200,000 under financing activities.

D. a cash outflow of $200,000 under financing activities.

23. Which of the following should be classified as a financing activity on a statement of cash flows?

	Interest Paid	Dividends Paid
A)	Yes	Yes
B)	No	Yes
C)	Yes	No
D)	No	No

A. Option A

B. Option B

C. Option C

D. Option D

24. Which of the following would be added to net income in the operating activities section of a statement of cash flows prepared using the indirect method?

A. an increase in accounts receivable.

B. an increase in accounts payable.

C. an increase in common stock.

D. an increase in bonds payable.

25. Gary Corporation prepares its statement of cash flows using the indirect method. Which of the following would be subtracted from net income in the operating activities section of the statement?

	Increase in Income Taxes Payable	Increase in Bonds Payable
A)	Yes	Yes
B)	Yes	No
C)	No	Yes
D)	No	No

A. Option A

B. Option B

C. Option C

D. Option D

26. The sale of equipment at a gain would be shown on the statement of cash flows prepared under the indirect method in which of the following manners?

A. Cash received would be shown under Investing Activities and the gain would be subtracted from net income.

B. Cash received would be shown under Investing Activities and the gain would be added to net income.

C. Cash received would be shown under Investing Activities and the gain would not appear on the statement of cash flows.

D. Cash received would be shown as an adjustment to net income and the gain would not appear on the statement of cash flows.

27. Lueckenhoff Corporation's most recent balance sheet appears below:

Comparative Balance Sheet

	Ending Balance	Beginning Balance
Assets:		
Cash and cash equivalents	$ 34	$ 29
Accounts receivable	44	41
Inventory	72	60
Property, plant and equipment	610	550
Less accumulated depreciation	274	229
Total assets	$486	$451
Liabilities and stockholders' equity:		
Accounts payable	$ 32	$ 28
Bonds payable	305	400
Common stock	51	50
Retained earnings	98	(27)
Total liabilities and stockholders' equity	$486	$451

The company's net income for the year was $153 and it did not sell or retire any property, plant, and equipment during the year. Cash dividends were $28. The net cash provided by (used in) operating activities for the year was:

A. $34

B. $187

C. $119

D. $219

28. The most recent balance sheet and income statement of Swanigan Corporation appear below:

Comparative Balance Sheet

	Ending Balance	Beginning Balance
Assets:		
Cash and cash equivalents	$ 44	$ 36
Accounts receivable	32	30
Inventory	59	62
Property, plant and equipment	459	360
Less accumulated depreciation	245	214
Total assets	$349	$274
Liabilities and stockholders' equity:		
Accounts payable	$ 30	$ 25
Accrued liabilities	22	20
Income taxes payable	29	29
Bonds payable	66	70
Common stock	22	20
Retained earnings	180	110
Total liabilities and stockholders' equity	$349	$274

Income Statement

Sales	$753
Cost of goods sold	455
Gross margin	298
Selling and administrative expense	172
Net operating income	126
Income taxes	38
Net income	$ 88

Cash dividends were $18. The company did not sell or retire any property, plant, and equipment during the year. The net cash provided by (used in) operating activities for the year was:

A. $127

B. $39

C. $49

D. $126

29. Mccloe Corporation's balance sheet and income statement appear below:

Comparative Balance Sheet

	Ending Balance	Beginning Balance
Assets:		
Cash and cash equivalents	$ 32	$ 30
Accounts receivable	40	49
Inventory	52	49
Property, plant and equipment	528	490
Less accumulated depreciation	291	286
Total assets	$361	$332
Liabilities and stockholders' equity:		
Accounts payable	$ 45	$ 44
Accrued liabilities	18	15
Income taxes payable	44	44
Bonds payable	112	130
Common stock	65	60
Retained earnings	77	39
Total liabilities and stockholders' equity	$361	$332

Income Statement

Sales	$639
Cost of goods sold	401
Gross margin	238
Selling and administrative expense	183
Net operating income	55
Gain on sale of plant and equipment	12
Income before taxes	67
Income taxes	20
Net income	$ 47

Cash dividends were $9. The company did not issue any bonds or repurchase any of its own common stock during the year. The net cash provided by (used in) financing activities for the year was:

A. $5

B. $(22)

C. $(18)

D. $(9)

30. Lemar Corporation's net cash provided by operating activities was $70; its income taxes were $13; its capital expenditures were $67; and its cash dividends were $5. The company's free cash flow was:

A. $155

B. -$59

C. $11

D. -$2

31. The statement of cash flows:

A. serves as a replacement for the income statement and balance sheet.

B. explains the change in the cash balance at one point in time.

C. explains the change in the cash balance for one period of time.

D. both A and B above.

32. The formula for the gross margin percentage is:

A. (Sales - Cost of goods sold)/Cost of goods sold

B. (Sales - Cost of goods sold)/Sales

C. Net income/Sales

D. Net income/Cost of goods sold

33. A drop in the market price of a firm's common stock will immediately affect its:

A. return on common stockholders' equity.

B. current ratio.

C. dividend payout ratio.

D. dividend yield ratio.

34. Financial leverage is negative when:

A. the return on total assets is less than the rate of return on common stockholders' equity.

B. total liabilities are less than stockholders' equity.

C. total liabilities are less than total assets.

D. the return on total assets is less than the rate of return demanded by creditors.

35. Issuing new shares of stock in a five-for-one split of common stock would:

A. decrease the book value per share of common stock.

B. increase the book value per share of common stock.

C. increase total stockholders' equity.

D. decrease total stockholders' equity.

36. Ozols Corporation's most recent income statement appears below:

Sales (all on account)	$643,000
Cost of goods sold	285,000
Gross margin	358,000
Selling and administrative expense	155,000
Net operating income	203,000
Interest expense	34,000
Net income before taxes	169,000
Income taxes	50,000
Net income	$119,000

The gross margin percentage is closest to:

A. 33.2%

B. 55.7%

C. 300.8%

D. 125.6%

37. Crandler Company's net income last year was $60,000. The company paid preferred dividends of $20,000 and its average common stockholders' equity was $500,000. The company's return on common stockholders' equity for the year was closest to:

A. 16.0%

B. 4.0%

C. 8.0%

D. 12.0%

38. The following data have been taken from your company's financial records for the current year:

Earnings per share	$15
Dividend per share	$9
Market price per share	$120
Book value per share..........	$90

The price-earnings ratio is:

A. 12.5

B. 6.0

C. 8.0

D. 7.5

39. The following account balances have been provided for the end of the most recent year:

Total assets...	$150,000
Total stockholders' equity................................	$120,000
Total common stock (5,000 shares).................	$50,000
Total preferred stock (1,000 shares)...............	$10,000

The book value per share of common stock is:

A. $22

B. $25

C. $20

D. $28

40. Last year, Shadow Corporation's dividend on common stock was $9.90 per share and the dividend on preferred stock was $1.00 per share. The market price of common stock at the end of the year was $68.10 per share. The dividend yield ratio is closest to:

A. 0.15

B. 0.16

C. 0.91

D. 0.01

Exam 4 Chapters 13-15 Garrison 14ed Key

1. If the internal rate of return is used as the discount rate in computing net present value, the net present value will be:

A. positive.

B. negative.

C. zero.

D. unknown.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 13 #17
Learning Objective: 13-01 Evaluate the acceptability of an investment project using the net present value method
Learning Objective: 13-02 Evaluate the acceptability of an investment project using the internal rate of return method
Level: Medium

2. An investment project for which the net present value is $300 would result in which of the following conclusions?

A. The net present value is too small; the project should be rejected.

B. The rate of return of the investment project is greater than the required rate of return.

C. The net present value method is not suitable for evaluating this project; the internal rate of return method should be used.

D. The investment project should only be accepted if net present value is zero; a positive net present value indicates an error in the estimates associated with the analysis of this investment.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Comprehension

Garrison - Chapter 13 #19

Learning Objective: 13-01 Evaluate the acceptability of an investment project using the net present value method

Learning Objective: 13-02 Evaluate the acceptability of an investment project using the internal rate of return method

Level: Medium

3. If a company has computed the project profitability index of an investment project as 0.15, then:

A. the project's internal rate of return is less than the discount rate.

B. the project's internal rate of return is greater than the discount rate.

C. the project's internal rate of return is equal to the discount rate.

D. the relation between the rate of return and the discount rate is impossible to determine from the given data.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 13 #15
Learning Objective: 13-01 Evaluate the acceptability of an investment project using the net present value method
Learning Objective: 13-02 Evaluate the acceptability of an investment project using the internal rate of return method
Learning Objective: 13-04 Rank investment projects in order of preference
Level: Medium

4. If investment A has a payback period of 3 years and investment B has a payback period of 4 years, then:

A. A has a higher net present value than B.

B. A has a lower net present value than B.

C. A and B have the same net present value.

D. the relation between investment A's net present value and investment B's net present value cannot be determined from the given information.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Knowledge
Garrison - Chapter 13 #24
Learning Objective: 13-05 Determine the payback period for an investment
Level: Medium

5. Which one of the following statements about the payback method of capital budgeting is correct?

A. The payback method does not consider the time value of money.

B. The payback method considers cash flows after the payback has been reached.

C. The payback method uses discounted cash flow techniques.

D. The payback method will lead to the same decision as other methods of capital budgeting.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Knowledge

Garrison - Chapter 13 #25

Learning Objective: 13-05 Determine the payback period for an investment

Level: Easy

Source: CMA, adapted

6. (Ignore income taxes in this problem.) An investment of P dollars now will yield cash inflows of $3,000 at the end of the first year and $2,000 at the end of the fourth year. If the internal rate of return for this investment is 20%, then the value of P is:

A. $3,463

B. $2,499

C. $964

D. $4,185

Item	Year(s)	Amount of Cash Flow	20% Factor	Present Value of Cash Flows
Inflow at end of year 1	1	$3,000	0.833	$2,499
Inflow at end of year 4	1	$2,000	0.482	964
Net present value				$3,463

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #27

Learning Objective: 13-01 Evaluate the acceptability of an investment project using the net present value method

Learning Objective: 13-02 Evaluate the acceptability of an investment project using the internal rate of return method

Level: Hard

7. (Ignore income taxes in this problem.) The Baker Company purchased a piece of equipment with the following expected results:

Useful life	7 years
Yearly net cash inflow	$50,000
Salvage value	$0
Internal rate of return	20%
Discount rate	16%

The initial cost of the equipment was:

A. $300,100

B. $180,250

C. $190,600

D. Cannot be determined from the given information.

The internal rate of return is the rate of return at which the net present value of the project is zero.

Item	Year(s)	Amount of Cash Flow	20% Factor	Present Value of Cash Flows
Initial investment	Now	(X)	1.000	(X)
Yearly net cash inflow	1-7	$50,000	3.605	$180,250
Net present value				$0

-X + $180,250 = $0

X = $180,250

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #28

Learning Objective: 13-01 Evaluate the acceptability of an investment project using the net present value method

Learning Objective: 13-02 Evaluate the acceptability of an investment project using the internal rate of return method

Level: Hard

8. (Ignore income taxes in this problem.) Mercredi, Inc., is considering investing in automated equipment with a ten-year useful life. Managers at Highpoint have estimated the cash flows associated with the tangible costs and benefits of automation, but have been unable to estimate the cash flows associated with the intangible benefits. Using the company's 14% required rate of return, the net present value of the cash flows associated with just the tangible costs and benefits is a negative $182,560. How large would the annual net cash inflows from the intangible benefits have to be to make this a financially acceptable investment?

A. $18,256

B. $26,667

C. $35,000

D. $38,000

Minimum annual cash flows required = Negative net present value to be offset ÷ Present value factor

= $182,560 ÷ 5.216 = $35,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #31

Learning Objective: 13-01 Evaluate the acceptability of an investment project using the net present value method

Learning Objective: 13-03 Evaluate an investment project that has uncertain cash flows

Level: Medium

9. (Ignore income taxes in this problem) The management of Serpas Corporation is considering the purchase of a machine that would cost $180,000, would last for 5 years, and would have no salvage value. The machine would reduce labor and other costs by $46,000 per year. The company requires a minimum pretax return of 13% on all investment projects. The net present value of the proposed project is closest to:

A. $27,138

B. $50,000

<u>C.</u> -$18,218

D. -$33,565

Item	Year(s)	Amount of Cash Flow	13% Factor	Present Value of Cash Flows
Initial investment	Now	$(180,000)	1.000	$(180,000)
Annual cost savings	1-5	$46,000	3.517	161,782
Net present value				$(18,218)

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #37

Learning Objective: 13-01 Evaluate the acceptability of an investment project using the net present value method

Level: Easy

10. (Ignore income taxes in this problem.) Mcclam, Inc., is considering the purchase of a machine that would cost $100,000 and would last for 9 years. At the end of 9 years, the machine would have a salvage value of $23,000. The machine would reduce labor and other costs by $19,000 per year. Additional working capital of $2,000 would be needed immediately. All of this working capital would be recovered at the end of the life of the machine. The company requires a minimum pretax return of 13% on all investment projects. The net present value of the proposed project is closest to:

A. $3,833

B. $5,167

C. -$2,492

D. $11,514

Item	Year(s)	Amount of Cash Flow	13% Factor	Present Value of Cash Flows
Initial investment	Now	$(100,000)	1.000	$(100,000)
Working capital needed	Now	$(2,000)	1.000	(2,000)
Annual cost savings	1-9	$19,000	5.132	97,508
Working capital released	9	$2,000	0.333	666
Salvage value	9	$23,000	0.333	7,659
Net present value				$ 3,833

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #40

Learning Objective: 13-01 Evaluate the acceptability of an investment project using the net present value method

Level: Easy

11. The discount rate must be specified in advance for which of the following methods?

	Net Present Value	Internal Rate of Return
A)	yes	yes
B)	yes	no
C)	no	no
D)	no	yes

A. Option A

B. Option B

C. Option C

D. Option D

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Comprehension

Garrison - Chapter 13 #18

Learning Objective: 13-01 Evaluate the acceptability of an investment project using the net present value method

Learning Objective: 13-02 Evaluate the acceptability of an investment project using the internal rate of return method

Level: Medium

12. (Ignore income taxes in this problem.) The management of Dewitz Corporation is considering a project that would require an initial investment of $65,000. No other cash outflows would be required. The present value of the cash inflows would be $72,800. The profitability index of the project is closest to:

A. 0.12

B. 1.12

C. 0.88

D. 0.11

	Project A
Investment required (a)................................	$(65,000)
Present value of cash inflows.......................	72,800
Net present value (b).....................................	$ 7,800
Project profitability index (b) ÷ (a)............	0.12

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #56

Learning Objective: 13-04 Rank investment projects in order of preference

Level: Easy

13. (Ignore income taxes in this problem.) The management of Dittrick Corporation is considering the following three investment projects:

	Project I	Project J	Project K
Investment required	$13,000	$41,000	$93,000
Present value of cash inflows	$13,520	$47,150	$103,230

Rank the projects according to the profitability index, from most profitable to least profitable.

A. I, J, K

B. K, J, I

C. J, K, I

D. I, K, J

	Project I	Project J	Project K
Investment required (a)	$(13,000)	$(41,000)	$ (93,000)
Present value of cash inflows	13,520	47,150	103,230
Net present value (b)	$ 520	$ 6,150	$ 10,230
Project profitability index (b) ÷ (a)	0.04	0.15	0.11
Ranked by project profitability index	3	1	2

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #57

Learning Objective: 13-04 Rank investment projects in order of preference

Level: Easy

14. (Ignore income taxes in this problem.) The Higgins Company has just purchased a piece of equipment at a cost of $120,000. This equipment will reduce operating costs by $40,000 each year for the next eight years. This equipment replaces old equipment which was sold for $8,000 cash. The new equipment has a payback period of:

A. 8.0 years

B. 2.8 years

C. 10.0 years

D. 3.0 years

Payback period = Investment required ÷ Annual net cash inflow

= ($120,000 - $8,000) ÷ $40,000 per year = 2.8 years

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #65

Learning Objective: 13-05 Determine the payback period for an investment

Level: Easy

15. (Ignore income taxes in this problem.) Rogers Company is studying a project that would have a ten-year life and would require an $800,000 investment in equipment which has no salvage value. The project would provide net operating income each year as follows for the life of the project:

Sales		$500,000
Less cash variable expenses		100,000
Contribution margin		400,000
Less fixed expenses:		
Fixed cash expenses	$200,000	
Depreciation expenses	80,000	280,000
Net operating income		$120,000

The company's required rate of return is 8%. What is the payback period for this project?

A. 3 years

B. 6.67 years

C. 2 years

<u>D.</u> 4 years

Net operating income	$120,000
Add: Noncash deduction for depreciation	80,000
Annual net cash inflow	$200,000

Payback period = Investment required ÷ Annual net cash inflow

= $800,000 ÷ $200,000 per year = 4.0 years

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #67

Learning Objective: 13-05 Determine the payback period for an investment

Level: Medium

16. If an investment has cash outflows of Q dollars at the end of each year for three years, then the present value of these cash outflows under a 10% rate of return will be:

A. greater than under a 12% rate of return.

B. less than under a 12% rate of return.

C. equal to that under a 12% rate of return.

D. unknown because it depends on the size of Q.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 13 #4
Learning Objective: 13A-07 Understand present value concepts and the use of present value tables
Level: Medium

17. (Ignore income taxes in this problem.) In order to receive $12,000 at the end of three years and $10,000 at the end of five years, how much must be invested now if you can earn 14% rate of return?

A. $12,978

B. $8,100

C. $13,290

D. $32,054

Item	Year(s)	Amount of Cash Flow	14% Factor	Present Value of Cash Flows
At the end of three years.................	3	$12,000	0.675	$8,100
At the end of five years	5	$10,000	0.519	5,190
Net present value..............................				$13,290

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #11

Learning Objective: 13A-07 Understand present value concepts and the use of present value tables

Level: Easy

18. Ring Corporation uses a discount rate of 12% and has a tax rate of 30%. The following cash flows occur in the third year of an equipment selection investment project:

Net operating cash inflows	**$90,000**
Depreciation deduction	**$72,000**

The total after-tax present value of the cash flows is closest to:

A. $10,152

B. $34,603

C. $60,235

D. $79,459

	Year(s)	Amount of Cash Flows	Tax Effect	After-Tax Cash Flows	12% Factor	Present Value of Cash Flows
Net operating cash inflows	3	$90,000	0.70	$63,000	0.712	$44,856
Depreciation deduction	3	$72,000	0.30	$21,600	0.712	15,379
Net present value						$60,235

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 13 #11

Learning Objective: 13C-08 Include income taxes in a capital budgeting analysis

Level: Medium

19. Which of the following would be considered a cash outflow in the investing activities section of the statement of cash flows?

A. Dividends paid to the company's own stockholders.

B. Payment of interest to a lender.

C. Purchase of equipment.

D. Retirement of bonds payable.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 14 #21
Learning Objective: 14-01 Classify cash inflows and outflows as relating to operating; investing or financing activities
Level: Medium

20. In a statement of cash flows, which of the following would be classified as an operating activity?

A. The purchase of equipment.

B. Dividends paid to the company's own common stockholders.

C. Tax payments to governmental bodies.

D. The cash paid to retire bonds payable.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 14 #22
Learning Objective: 14-01 Classify cash inflows and outflows as relating to operating; investing or financing activities
Level: Medium

21. In a statement of cash flows, all of the following would be classified as financing activities except:

A. the collection of cash related to a loan made to another entity.

B. the payment of a cash dividend on the company's own common stock.

C. the cash paid to retire bonds payable.

D. the sale of the company's own common stock for cash.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 14 #25
Learning Objective: 14-01 Classify cash inflows and outflows as relating to operating; investing or financing activities
Level: Medium

22. If Thomson Company did not issue any bonds payable during the year and its bonds payable account decreased by $200,000 over the course of a year, then this amount would be shown on the company's statement of cash flows prepared under the indirect method as:

A. a cash inflow of $200,000 under investing activities.

B. a cash outflow of $200,000 under investing activities.

C. a cash inflow of $200,000 under financing activities.

D. a cash outflow of $200,000 under financing activities.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 14 #26
Learning Objective: 14-01 Classify cash inflows and outflows as relating to operating; investing or financing activities
Level: Medium

23. Which of the following should be classified as a financing activity on a statement of cash flows?

	Interest Paid	Dividends Paid
A)	Yes	Yes
B)	No	Yes
C)	Yes	No
D)	No	No

A. Option A

B. Option B

C. Option C

D. Option D

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 14 #27
Learning Objective: 14-01 Classify cash inflows and outflows as relating to operating; investing or financing activities
Level: Medium

24. Which of the following would be added to net income in the operating activities section of a statement of cash flows prepared using the indirect method?

A. an increase in accounts receivable.

B. an increase in accounts payable.

C. an increase in common stock.

D. an increase in bonds payable.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Comprehension

Garrison - Chapter 14 #29

Learning Objective: 14-02 Prepare a statement of cash flows using the indirect method to determine the net cash provided by operating activities

Level: Medium

25. Gary Corporation prepares its statement of cash flows using the indirect method. Which of the following would be subtracted from net income in the operating activities section of the statement?

	Increase in Income Taxes Payable	Increase in Bonds Payable
A)	Yes	Yes
B)	Yes	No
C)	No	Yes
D)	No	No

A. Option A

B. Option B

C. Option C

D. Option D

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Comprehension

Garrison - Chapter 14 #33

Learning Objective: 14-02 Prepare a statement of cash flows using the indirect method to determine the net cash provided by operating activities

Level: Hard

26. The sale of equipment at a gain would be shown on the statement of cash flows prepared under the indirect method in which of the following manners?

A. Cash received would be shown under Investing Activities and the gain would be subtracted from net income.

B. Cash received would be shown under Investing Activities and the gain would be added to net income.

C. Cash received would be shown under Investing Activities and the gain would not appear on the statement of cash flows.

D. Cash received would be shown as an adjustment to net income and the gain would not appear on the statement of cash flows.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 14 #34
Learning Objective: 14-02 Prepare a statement of cash flows using the indirect method to determine the net cash provided by operating activities
Level: Hard

27. Lueckenhoff Corporation's most recent balance sheet appears below:

Comparative Balance Sheet

	Ending Balance	Beginning Balance
Assets:		
Cash and cash equivalents	$ 34	$ 29
Accounts receivable	44	41
Inventory	72	60
Property, plant and equipment	610	550
Less accumulated depreciation	274	229
Total assets	$486	$451
Liabilities and stockholders' equity:		
Accounts payable	$ 32	$ 28
Bonds payable	305	400
Common stock	51	50
Retained earnings	98	(27)
Total liabilities and stockholders' equity	$486	$451

The company's net income for the year was $153 and it did not sell or retire any property, plant, and equipment during the year. Cash dividends were $28. The net cash provided by (used in) operating activities for the year was:

A. $34

B. $187

C. $119

D. $219

Operating activities:

Net income		$153
Adjustments to convert net income to a cash basis:		
Depreciation	$45	
Increase in accounts receivable	(3)	
Increase in inventory	(12)	
Increase in accounts payable	4	34
Net cash provided by operating activities		$187

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 14 #40

Learning Objective: 14-02 Prepare a statement of cash flows using the indirect method to determine the net cash provided by operating activities

Level: Easy

28. The most recent balance sheet and income statement of Swanigan Corporation appear below:

Comparative Balance Sheet

	Ending Balance	Beginning Balance
Assets:		
Cash and cash equivalents	$ 44	$36
Accounts receivable	32	30
Inventory	59	62
Property, plant and equipment	459	360
Less accumulated depreciation	245	214
Total assets	$349	$274
Liabilities and stockholders' equity:		
Accounts payable	$ 30	$ 25
Accrued liabilities	22	20
Income taxes payable	29	29
Bonds payable	66	70
Common stock	22	20
Retained earnings	180	110
Total liabilities and stockholders' equity	$349	$274

Income Statement

Sales	$753
Cost of goods sold	455
Gross margin	298
Selling and administrative expense	172
Net operating income	126
Income taxes	38
Net income	$ 88

Cash dividends were $18. The company did not sell or retire any property, plant, and equipment during the year. The net cash provided by (used in) operating activities for the year was:

A. $127

B. $39

C. $49

D. $126

Operating activities

Net income		**$ 88**
Adjustments:		
Depreciation..	**$31**	
Increase in accounts receivable...............	**(2)**	
Decrease in inventory	**3**	
Increase in accounts payable...................	**5**	
Increase in accrued liabilities..................	**2**	**39**
Net cash provided by operating activities.		**$127**

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 14 #44

Learning Objective: 14-02 Prepare a statement of cash flows using the indirect method to determine the net cash provided by operating activities

Level: Medium

29. Mccloe Corporation's balance sheet and income statement appear below:

Comparative Balance Sheet

	Ending Balance	Beginning Balance
Assets:		
Cash and cash equivalents	$ 32	$ 30
Accounts receivable	40	49
Inventory	52	49
Property, plant and equipment	528	490
Less accumulated depreciation	291	286
Total assets	$361	$332
Liabilities and stockholders' equity:		
Accounts payable	$ 45	$ 44
Accrued liabilities	18	15
Income taxes payable	44	44
Bonds payable	112	130
Common stock	65	60
Retained earnings	77	39
Total liabilities and stockholders' equity	$361	$332

Income Statement

Sales	$639
Cost of goods sold	401
Gross margin	238
Selling and administrative expense	183
Net operating income	55
Gain on sale of plant and equipment	12
Income before taxes	67
Income taxes	20
Net income	$ 47

Cash dividends were $9. The company did not issue any bonds or repurchase any of its own common stock during the year. The net cash provided by (used in) financing activities for the year was:

A. $5

B. $(22)

C. $(18)

D. $(9)

Financing activities:

Retirement of bonds payable	$(18)
Issuance of common stock	5
Cash dividends	(9)
Net cash used in financing activities	$(22)

AACSB: Analytic
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Application
Garrison - Chapter 14 #48
Learning Objective: 14-02 Prepare a statement of cash flows using the indirect method to determine the net cash provided by operating activities
Level: Medium

30. Lemar Corporation's net cash provided by operating activities was $70; its income taxes were $13; its capital expenditures were $67; and its cash dividends were $5. The company's free cash flow was:

A. $155
B. -$59
C. $11
D. -$2

Free cash flow = Net cash provided by operating activities - Capital expenditures - Dividends
= $70 - $67 - $5 = -$2

AACSB: Analytic
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Application
Garrison - Chapter 14 #59
Learning Objective: 14-03 Compute free cash flow
Level: Easy

31. The statement of cash flows:

A. serves as a replacement for the income statement and balance sheet.

B. explains the change in the cash balance at one point in time.

C. explains the change in the cash balance for one period of time.

D. both A and B above.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Knowledge
Garrison - Chapter 14 #35
Learning Objective: Other Topics
Level: Easy

32. The formula for the gross margin percentage is:

A. (Sales - Cost of goods sold)/Cost of goods sold

B. (Sales - Cost of goods sold)/Sales

C. Net income/Sales

D. Net income/Cost of goods sold

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Knowledge
Garrison - Chapter 15 #16
Learning Objective: 15-01 Prepare and interpret financial statements in comparative and common-sized form
Level: Easy

33. A drop in the market price of a firm's common stock will immediately affect its:

A. return on common stockholders' equity.

B. current ratio.

C. dividend payout ratio.

D. dividend yield ratio.

Dividend yield ratio = Dividends per share ÷ Market price per share

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 15 #19
Learning Objective: 15-02 Compute and interpret financial ratios that would be useful to a common stockholder
Level: Medium
Source: CMA, adapted

34. Financial leverage is negative when:

A. the return on total assets is less than the rate of return on common stockholders' equity.

B. total liabilities are less than stockholders' equity.

C. total liabilities are less than total assets.

D. the return on total assets is less than the rate of return demanded by creditors.

If the rate of return on total assets is less than the rate of return the company pays its creditors, *financial leverage is negative*

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 15 #20
Learning Objective: 15-02 Compute and interpret financial ratios that would be useful to a common stockholder
Level: Medium

35. Issuing new shares of stock in a five-for-one split of common stock would:

A. decrease the book value per share of common stock.

B. increase the book value per share of common stock.

C. increase total stockholders' equity.

D. decrease total stockholders' equity.

If the number of shares increases the book value per share is decreased as illustrated in the formula:

Book value per share = (Total stockholders' equity - Preferred stock) ÷ Number of common shares outstanding

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
AICPA FN: Measurement
Blooms: Comprehension
Garrison - Chapter 15 #22
Learning Objective: 15-02 Compute and interpret financial ratios that would be useful to a common stockholder
Level: Medium
Source: CMA, adapted

36. Ozols Corporation's most recent income statement appears below:

Sales (all on account)	$643,000
Cost of goods sold	285,000
Gross margin	358,000
Selling and administrative expense	155,000
Net operating income	203,000
Interest expense	34,000
Net income before taxes	169,000
Income taxes	50,000
Net income	$119,000

The gross margin percentage is closest to:

A. 33.2%

B. 55.7%

C. 300.8%

D. 125.6%

Gross margin percentage = Gross margin ÷ Sales

= $358,000 ÷ $643,000 = $55.7%

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 15 #33

Learning Objective: 15-01 Prepare and interpret financial statements in comparative and common-sized form

Level: Easy

37. Crandler Company's net income last year was $60,000. The company paid preferred dividends of $20,000 and its average common stockholders' equity was $500,000. The company's return on common stockholders' equity for the year was closest to:

A. 16.0%

B. 4.0%

C. 8.0%

D. 12.0%

Return on common stockholders' equity

= (Net income - Preferred dividends) ÷ Average common stockholders' equity

= ($60,000 - $20,000) ÷ $500,000 = 8.0%

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 15 #34

Learning Objective: 15-02 Compute and interpret financial ratios that would be useful to a common stockholder

Level: Easy

38. The following data have been taken from your company's financial records for the current year:

Earnings per share	**$15**
Dividend per share	**$9**
Market price per share	**$120**
Book value per share	**$90**

The price-earnings ratio is:

A. 12.5

B. 6.0

<u>C.</u> 8.0

D. 7.5

Price-earnings ratio = Market price per share ÷ Earnings per share (see above)

= $120 per share ÷ $15 per share = 8.0

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 15 #38

Learning Objective: 15-02 Compute and interpret financial ratios that would be useful to a common stockholder

Level: Easy

39. The following account balances have been provided for the end of the most recent year:

Total assets	$150,000
Total stockholders' equity	$120,000
Total common stock (5,000 shares)	$50,000
Total preferred stock (1,000 shares)	$10,000

The book value per share of common stock is:

A. $22

B. $25

C. $20

D. $28

Book value per share = Common stockholders' equity

÷ Number of common shares outstanding

= ($120,000 - $10,000) ÷ 5,000 shares = $22 per share

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 15 #44

Learning Objective: 15-02 Compute and interpret financial ratios that would be useful to a common stockholder

Level: Medium

40. Last year, Shadow Corporation's dividend on common stock was \$9.90 per share and the dividend on preferred stock was \$1.00 per share. The market price of common stock at the end of the year was \$68.10 per share. The dividend yield ratio is closest to:

A. 0.15

B. 0.16

C. 0.91

D. 0.01

Dividend yield ratio = Dividends per share ÷ Market price per share

= \$9.90 per share ÷ \$68.10 per share = 0.15

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 15 #48

Learning Objective: 15-02 Compute and interpret financial ratios that would be useful to a common stockholder

Level: Easy

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