1) For two mutually exclusive projects with equal lives, the one with

A) a lower FW at the MARR should be chosen

B) a lower PW at the MARR should be chosen

C) a higher incremental AW at the MARR should be chosen

D) a higher AW at the MARR should be chosen

E) a higher incremental PW at the MARR should be chosen

2) If one project cannot be done by itself, a second project can be done alone, and both of them can be done together then the first project is said to be

A) mutually exclusive to the second project

B) interrelated with the second project

C) related and mutually exclusive to the second project

D) independent from the second project

E) dependent on the second project

3) Suppose that cash flows of a project are given as follows:

Year	Costs, $$	Savings, $$
0	100 000	0
1	20 000	60 000
2	20 000	70 000
3	20 000	80 000
4	20 000	90 000

It is known that MARR is 10%. What is the project's payback period?

A) four years

B) one year

C) three years

D) two years

E) the project does not pay back

4) Mutually exclusive projects can be compared in terms of present worth if

A) they have the same depreciation rate

B) they have the same service life

C) they have the same costs

D) they have the same rate of return

E) they have the same benefits

5) For a project to be considered for investment, its IRR

A) must be greater than the MARR

B) must be lower than the MARR

C) must be equal to the MARR

D) must at least be equal to or greater than the MARR

E) must at least be equal to or lower than the MARR

6) A project requires $10,000 as initial investment and will earn a revenue of $3,000 per year over the next five years. Annual interest rate is 10%. What is the present worth of the project's benefits?

A) $10,000

B) $11,372

C) $12,846

D) $1,637

E) $11,637

7) A project requires $10,000 as initial investment and will earn a revenue of $2,000 per year over the next seven years. The interest rate is10.0% per year. What is the present worth of the project's costs?

A) $11,573

B) $1,573

C) $9,737

D) $10,000

E) $2,000

8) What is the annual worth of an independent project that requires initial investment of $50,000 and annual maintenance costs of $4,000 for 15 years at a 10% MARR?

A) - $4,000

B) - $10,574

C) - $32,444

D) - $6,574

E) - $17,556

9) Two mutually exclusive projects with the same service lives of 2 years are characterized by first costs of $100 million and $120 million respectively and annual savings of $60 million and $70 million respectively. If the MARR is 10%, which one should be chosen on the basis of the present worth comparison method?

A) Neither because both produce negative present worth
B) The second one because its present worth is higher
C) The first one because incremental present worth is positive
D) The second one because it has higher annual savings
E) The first one because its present worth is higher

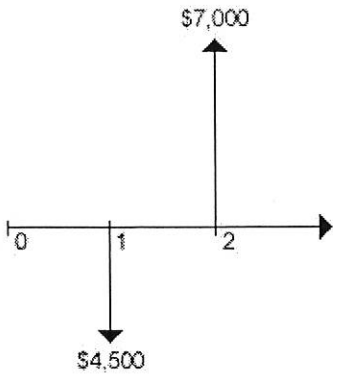
10) The annual worth method is

A) similar to the present worth method since it transforms all annuities to the present worth as a single payment
B) similar to the present worth method but transform all annuities to arithmetic gradient series at the minimum acceptable rate of return.
C) methodologically different from the present worth method since it does not convert all annuities to the present worth at the minimum acceptable rate of return
D) similar to the present worth method but transforms all annuities to a uniform series at the minimum acceptable rate of return.
E) similar to the present worth method except that all payments are converted into a geometric gradient series

11) For the purpose of comparison, what alternative should be used to an independent project?

A) do nothing alternative
B) other projects, earning MARR or higher interest rate
C) investing money in an alternative project that can recoup the investment
D) putting money into a bank to earn a bank interest rate
E) investing money in an alternative project, which can earn the same interest rate as an independent project

12) A project is subject to the following cash flow diagram:



What is its rate of return?

A) 74%

B) 22%

C) 36%

D) 56%

E) 60%

13) The following table summarizes information for five projects:

Project	First Cost (in $)	IRR on Overall Investment	IRR on Increments of Investment Compared with Projects (%)			
			1	2	3	4
1	100,000	19%				
2	175,000	15%	9%			
3	200,000	18%	17%	23%		
4	250,000	16%	12%	17%	13%	
5	300,000	17%	14%	11%	17%	16%

The data can be interpreted in the following way: The IRR on the incremental investment between project 5 and project 4 is 16%.

If all projects are mutually exclusive and the company has at least $1 500 000 to invest, which projects should be undertaken if the MARR is 16%?

A) only 5

B) 1, 2, 3, 4 and 5

C) 1, 3, 4 and 5

D) 2 and 4

E) 1, 3 and 5

14) The fundamental idea behind comparison of mutually exclusive projects on the basis of incremental IRR is

A) high uncertainty

B) some investments are not productive

C) multiple IRRs

D) different fractions of investments are associated with different levels of productivity

E) all investments are non-simple

15) I sign a contract that guarantees me an immediate payment of $500, and another payment of $3,000 at the end of second year. However, the plan requires me to invest $2,500 a year from now. What is my internal rate of return on the contract?

A) There are two solutions: 150% and 175%

B) There are two solutions: 200% and 100%

C) There is a single solution: about 75%

D) There are two solutions: 75% and 125%

E) There are two solutions: 50% and 75%

16) The most used depreciation method for physical assets in Canada is

A) declining-balance depreciation

B) 150%-declining-balance depreciation

C) sum-of-the-years'-digits depreciation

D) double-declining-balance depreciation

E) units-of-production depreciation

17) In a balance sheet Current Assets are $9,000; Long-term Assets are $11,000; Current Liabilities are $7,000; Long-term Liabilities are $8,000; and Total Owners' Equity is $5,000. What is the equity ratio?

A) 1.0

B) 0.33

C) 0.25

D) 0.50

E) 0.75

18) A computer was bought for $2,000. After three years of service it can be sold for $500. If straight line depreciation is assumed, what was the computer's book value at the end of year 2?

A) $1,500

B) $1,000

C) $0

D) $2,000

E) $500

19) If a company has to use declining-balance depreciation model, what is the depreciation rate of a physical asset with the purchase price of $150,000 and salvage value of $16,100 after 10 years of service?

A) 20%

B) 16.4%

C) 59.2%

D) 16.7%

E) 25%

20) Charles has just purchased a car for $9 520. He expects that the value of this car will decline by 5% each year. Eventually Charles wants to sell this car for $6 000 and buy a new one. How many years should Charles use this car before he can sell it?

A) around 9 years

B) around 12 years

C) around 4 years

D) around 10 years

E) around 6 years

21) For a given firm, the balance sheet

A) lists the individuals and institutions that own the company assets

B) provides the firm's net income

C) summarizes firm's revenues and expenses over a period of time

D) gives the firm's assets, liabilities and owners' equity over a period of time

E) gives the firm's assets, liabilities and owners' equity at a moment in time

22) A project requires no initial investment. It costs $4,000 a year from now and earns $6,000 two years from now. What is its internal rate of return?

A) 50%

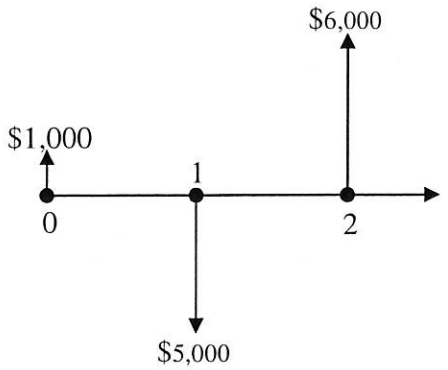
B) 100% and 50%

C) 100%

D) 75% and 100%

E) 75%

23) A project has a MARR of 10% and is subject to the following cash flow diagram:



If it has two IRR of 100% and 200%, what is it's External Rate of Return (ERR)?

A) 50% and 100%

B) 100% and 200%

C) 54%

D) 75%

E) 66%

24) The "Half-Year Rule" of taxation refers to the fact that

A) half of the capital cost is allowed in CCA calculation in the second year of purchase of an asset

B) full capital cost is allowed in CCA calculation in the second year of purchase of an asset

C) half of the capital cost is allowed in CCA calculation in the year of purchase of an asset

D) full capital cost is allowed in CCA calculation in the year of purchase of an asset

E) None of the above

25) Suppose that a Canadian company bought a car for $20,000 in 2010. The CCA rate for the car is 20% and the corporate tax rate is 40%. How much money does the company save in the first year as a result of the CCA allowance?

A) $800

B) $2,400

C) $1,200

D) $1,400

E) It does not save at all since it still has to pay taxes

26) The annual worth of a project is measured in terms of

A) dollars

B) dollars per year

C) dollars at time zero (t_0)

D) percentage

E) dollars per unit per year

27) Consider the following investment alternatives:

YEAR	A	B	C	D	E
0	-$100	-$100	-$100	-$100	-$100
1	$200	$470	-$200	0	$300
2	$300	$720	$200	0	$250
3	$400	$360	$250	$500	-$40

If MARR is 10%, which one is the best based on PW comparison method?

A) A

B) B

C) C

D) D

E) E

28) Two mutually exclusive alternatives are being compared. We should choose the alternative that

A) has an incremental investment with a rate of return equal to the minimum acceptable rate of return

B) has a higher minimum acceptable rate of return assuming the lives of the alternatives are equal

C) has an incremental investment with the rate of return exceeding minimum acceptable rate of return

D) has a higher internal rate of return assuming the lives of the alternatives are equal.

E) has a higher internal rate of return regardless of the lives of the alternatives.

29) The effect of taxation on annual savings is captured by

A) the depreciation rate

B) the capital tax factor

C) multiplying savings by one minus corporate tax rate

D) multiplying savings by the corporate tax rate

E) the capital salvage factor

30) Owner's equity

A) is the sum of the firm's long-term assets and current assets

B) is the cumulative sum of earnings from all transactions that can be reinvested in the business

C) is cash and other assets that could be converted to cash within a relatively short period of time, usually a year or less

D) is the difference between a firm's assets and liabilities

E) is the price per share set at the time the shares are originally issued