

Sample Final Exam

Part I (20 marks) There are 20 multiple choice questions in this part. Choose the one answer that best answers each question. Each question counts one mark.

1. The interest rate at which banks in the Eurocurrency market lend to each other is known as the _____.
 - a. Eurocurrency currency rate (ECR)
 - b. London interbank offer rate
 - c. exchange rate
 - d. interest rate parity
2. If the spot rate for Swiss francs is \$0.6658/franc and the 180-day forward rate is \$0.6637, the market is indicating that the Swiss franc is expected to
 - a. strengthen relative to the dollar
 - b. weaken relative to the ECU
 - c. lose value relative to the dollar over the next 6 months
 - d. gain value relative to the dollar over the next 6 months
3. The values shown in *ordinary annuity* tables (either present value or compound value) can be adjusted to the *annuity due* form by _____ the ordinary annuity interest factor by _____.
 - a. dividing, $(1 + i)$
 - b. dividing, $(1 + i)^n$
 - c. multiplying, $(1 + i)$
 - d. multiplying, $(1 + i)^n$
4. When using a present value of an annuity table(e.g., Table IV at the back of the book),
 - a. payments are assumed to be made at the beginning of each period
 - b. PVIFA factors decrease with an increase in the interest rate
 - c. PVIFA factors increase with an increase in the number of periods
 - d. b and c only
5. Which of the following types of debt securities protect investors against interest rate risk?
 - a. floating rate bonds
 - b. extendible notes
 - c. original issue deep discount bonds
 - d. a and b only

6. The _____ the investor's required rate of return on a bond, the _____ will be the value of the bond to the investor.
- lower, higher
 - higher, higher
 - lower, lower
 - none of the above
7. Which of the following is *not* a characteristic of common shares:
- has no maturity date
 - considered a permanent form of long-term financing
 - has claims on assets prior to those of preferred shares
 - is a residual form of ownership
8. Shareholders' equity includes all of the following except:
- Common shares at par
 - Treasury shares
 - Contributed capital in excess of par
 - Retained earnings
9. The cost of equity capital for non-dividend paying shares can be determined by
- using the Capital Asset Pricing Model
 - estimating k_E for comparable dividend-paying shares in their industry
 - forecasting the liquidation proceeds from the sale of the company's assets.
 - a and b
10. For a company that is not planning to change its target capital structure, the proportions of debt and equity used in calculating the weighted cost of capital should be based on the current _____ weights of the individual components.
- book value
 - market value
 - replacement value
 - a and b
11. Which of the following is a basic principle when estimating a project's cash flows?
- cash flows should be measured on a pretax basis
 - cash flows should ignore depreciation because it is a non-cash charge
 - only direct effects of a project should be included in cash flow calculations
 - cash flows should be measured on an incremental basis

12. The effect of a one dollar increase in depreciation expenses is to _____ the typical firm's net cash flows by _____ one dollar.
- increase, less than
 - increase, exactly
 - decrease, more than
 - increase, more than
13. The payback period of an investment is defined as:
- the number of years required for cumulative profits from a project to equal the initial outlay.
 - the number of years required for the cumulative cash flows from a project to equal the initial outlay.
 - the number of years required for the cumulative cash flows from a project to equal the average investment in the project, when depreciation is considered.
 - a period of time sufficient to earn a rate of return equal to the firm's cost of capital.
14. In the case of mutually exclusive projects, NPV and PI are likely to yield conflicting decisions when:
- the projects require the same net investment
 - the projects are significantly different in size
 - multiple rates of return are a possibility
 - none of the above
15. The length of the operating cycle is equal to the length of the
- inventory conversion period
 - receivables conversion period
 - cash conversion period
 - a plus b
16. Net working capital represents:
- the amount of current assets financed by noncurrent sources of funds.
 - the difference between current assets and long-term liabilities
 - the difference between current assets and fixed assets
 - a and b
17. Under a conservative approach to working capital management, a firm tends to hold a relatively _____ proportion of its total assets in the form of current assets.
- small
 - constant
 - stable
 - large

18. _____ consists of short-term unsecured promissory notes issued by large, well-known corporations and finance companies.
- a. Negotiable certificates of deposit
 - b. Commercial paper
 - c. Repurchase agreements
 - d. Bankers' acceptances
19. _____ are short-term debt instruments issued as part of a commercial transaction, with payment guaranteed by a commercial bank.
- a. Negotiable certificates of deposit
 - b. Commercial paper
 - c. Repurchase agreements
 - d. Bankers' acceptances
20. Liquid asset balances include all of the following except
- a. accounts receivable
 - b. chequing account balances
 - c. marketable securities
 - d. currency on hand

Part II (20 marks) There are 10 problems in this part and each problem counts 2 marks.

21. Mace Auto Parts Company sells to retail auto supply stores on credit terms of "net 60". Annual credit sales are \$300 million (spread evenly throughout the year) and its accounts average 28 days overdue. The firm's variable cost ratio is 0.75 (i.e., variable costs are 75 percent of sales). When converting from annual to daily data or vice versa, assume there are 365 days per year. Determine Mace's average investment in receivables.
- a. \$ 821,918
 - b. \$ 3,409,091
 - c. \$72,328,767
 - d. none of the above
22. Mace Auto Parts Company sells to retail auto supply stores on credit terms of "net 60". Annual credit sales are \$300 million (spread evenly throughout the year) and its accounts average 28 days overdue. The firm's variable cost ratio is 0.75 (i.e., variable costs are 75 percent of sales). When converting from annual to daily data or vice versa, assume there are 365 days per year. Suppose that Mace's sales are expected to increase by 20 percent next year and, through more effective collection methods, the firm is able to reduce its average collection period by 20 days. Determine the firm's average investment in receivables for next year under these conditions.
- a. \$67,068,493
 - b. \$56,666,667
 - c. \$5,294,118
 - d. none of the above
23. Warren Motor Company sells \$30 million of its products to wholesalers on terms of "net 30." Currently, the firm's average collection period is 48 days. In an effort to speed up the collection of receivables, Warren is considering offering a cash discount of 2 percent if customers pay their bills within 10 days. The firm expects 50 percent of its customers to take the discount and its average collection period to decline to 30 days. The firm's required pretax return (i.e. opportunity cost) on receivables investment is 16 percent. Determine the cost of the cash discounts to Warren.
- a. \$300,000
 - b. \$ 60,000
 - c. \$ 40,000
 - d. \$ 48,000

24. Warren Motor Company sells \$30 million of its products to wholesalers on terms of "net 30." Currently, the firm's average collection period is 48 days. In an effort to speed up the collection of receivables, Warren is considering offering a cash discount of 2 percent if customers pay their bills within 10 days. The firm expects 50 percent of its customers to take the discount and its average collection period to decline to 30 days. The firm's required pretax return (i.e. opportunity cost) on receivables investment is 16 percent. Determine Warren's pretax earnings on the funds released from the reduction in receivables. (Assume a 365-day year)
- a. \$1,479,452
 - b. \$236,712
 - c. \$266,667
 - d. none of the above
25. Linear Technology had sales (all on credit) of \$36 million and a gross profit margin of 30% last year. If Linear Technology's inventory averaged \$3.9 million, and its accounts receivable were \$5.0 million, what was the length of its operating cycle?
- a. 90.2 days
 - b. 128.9 days
 - c. 111.9 days
 - d. 107.2 days
26. A firm borrows \$250,000 under a 5-year term loan agreement at an interest rate of 10 percent. The repayment schedule calls for 5 equal annual payments, the first occurring at the end of the first year. What is the amount of each annual payment?
- a. \$155,250
 - b. \$ 65,946
 - c. \$ 50,000
 - d. \$ 75,000
27. A firm borrows \$250,000 under a 5 year term loan agreement at an interest rate of 10 percent. The repayment schedule calls for 5 equal annual payments, the first occurring at the end of the first year. How much of the second year payment is interest?
- a. \$16,401
 - b. \$45,041
 - c. \$20,905
 - d. \$18,405

28. The Atlantic Company plans to open a new branch office in a suburban area. The building will cost \$200,000 and will be included in CCA Class 1 (4%). Equipment for the building will cost an additional \$100,000 and will be included in CCA Class 1 (4%). The branch office is expected to generate additional before-tax net cash revenues of \$60,000 per year. The tax rate is 40 percent and the cost of capital is 12 percent. Compute the net present value for the project. Assume at the end of twenty years, neither asset has a salvage value.
29. Sigma is thinking about purchasing a new clam digger for \$14,000. The expected net cash flows resulting from the digger are \$9,000 in year 1, \$7,000 in year 2, \$5,000 in year 3, and \$3,000 in year 4. Should Sigma purchase this digger if its cost of capital is 12 percent?
- a. Yes, NPV = \$3,176
 - b. Yes, NPV = \$5,084
 - c. Yes, NPV = \$16,605
 - d. Yes, NPV = \$19,084
30. Ten years ago J-Bar Company purchased a lathe for \$250,000. It was included in CCA Class 8 (20%) and had a UCC of \$37,749. The firm is considering selling the old lathe and purchasing a new one. The new lathe would cost \$500,000. The firm's marginal tax rate 40 percent. Determine the net investment required to purchase the new lathe, if the old lathe is sold for \$100,000.
- a. \$380,000
 - b. \$397,500
 - c. \$400,000
 - d. None of the above