Student name:\_\_\_\_\_\_\_\_\_\_

**MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.  
1)** The before-tax cost of debt for Hardcastle Industries, Incorporated is currently 8.0%, but it will increase to 8.25% when debt levels reach $600 million. The debt-to-total assets ratio for Hardcastle is 40% and its capital structure is composed of debt and common equity only. If Hardcastle changes its target capital structure to 50% debt / 50% equity, which of the following describes the effect on the level of new investment at which the cost of debt will increase? The level will:

1) \_\_\_\_\_\_

A) decrease.   
 B) change, but can either increase or decrease.  
 C) increase.

**2)** An analyst gathered the following information about a capital budgeting project:  
 ● The proposed project cost $10,000.  
 ● The project is expected to increase pretax net income and cash flow by $3,000 in each of the next eight years.  
 ● The company has 50% of its capital in equity at a cost of 12%.  
 ● The pretax cost of debt capital is 6%.  
 ● The company’s tax rate is 33%.  
   
 The project’s net present value is *closest to*:

2) \_\_\_\_\_\_

A) $1,551.   
 B) $6,604.  
 C) $7,240.

**3)** Which of the following stakeholders are *most likely* to benefit from a company’s growth and excellent financial performance?

3) \_\_\_\_\_\_

A) Governments.   
 B) Creditors.  
 C) Customers.

**4)** Lincoln Coal is planning a new coal mine, which will cost $430,000 to build, with the expenditure occurring next year. The mine will bring cash inflows of $200,000 annually over the subsequent seven years. It will then cost $170,000 to close down the mine over the following year. Assume all cash flows occur at the end of the year. Alternatively, Lincoln Coal may choose to sell the site today. What minimum price should Lincoln set on the property, given a 16% required rate of return?

4) \_\_\_\_\_\_

A) $376,872.   
 B) $280,913.  
 C) $325,859.

**5)** Which of the following statements about corporate governance is *most accurate*? Corporate governance:

5) \_\_\_\_\_\_

A) best practices are essentially the same in developed economies.   
 B) is defined in the same way in most countries.  
 C) may be focused only on shareholder interests.

**6)** Arlington Machinery currently has assets on its balance sheet of $300 million that is financed with 70% equity and 30% debt. The executive management team at Arlington is considering a major expansion that would require raising additional capital. Jeffery Marian, an analyst with Arlington Machinery, has put together the following schedule for the costs of debt and equity:

|  |  |  |  |
| --- | --- | --- | --- |
| **Amount of New Debt (in millions)** | **After-tax Cost of Debt** | **Amount of New Equity (in millions)** | **Cost of Equity** |
| **$0 to $49** | 4.0% | $0 to $99 | 7.0% |
| **$50 to $99** | 4.2% | $100 to $199 | 8.0% |
| **$100 to $149** | 4.5% | $200 to $299 | 9.0% |

In a presentation to Arlington’s executive management team, Marian makes the following statements:  
 Statement 1: If we maintain our target capital structure of 70% equity and 30% debt, the breakpoint at which our cost of equity will increase to 9.0% is approximately $286 million in new capital.  
 Statement 2: If we want to finance total assets of $600 million, our weighted average cost of capital (WACC) for the additional financing needed will be 7.56%.  
 Marian’s statements are:

|  |  |  |
| --- | --- | --- |
|  | **Statement 1** | **Statement 2** |
| **A)** | Correct | Incorrect |
| **B)** | Incorrect | Incorrect |
| **C)** | Correct | Correct |

6) \_\_\_\_\_\_

A) Option A   
 B) Option B  
 C) Option C

**7)** The effect of a company announcement that they have begun a project with a current cost of $10 million that will generate future cash flows with a present value of $20 million is *most likely* to:

7) \_\_\_\_\_\_

A) only affect value of the firm’s common shares if the project was unexpected.   
 B) increase the value of the firm’s common shares by $20 million.  
 C) increase value of the firm’s common shares by $10 million.

**8)** The following is a schedule of Tiger Company’s new debt and equity capital costs ($ millions):

|  |  |  |  |
| --- | --- | --- | --- |
| **Amount of New Debt** | **After-tax Cost of Debt** | **Amount of New Equity** | **Cost of Equity** |
| **< $30** | 3.5% | < $60 | 8.5% |
| **$30 − $60** | 4.0% | $60 − $90 | 10.3% |
| **> $60** | 4.7% | > $90 | 12.5% |

The company has a target capital structure of 30% debt and 70% equity. Tiger needs to raise an additional $135.0 million of capital for a new project while maintaining its target capital structure. The company’s second debt break point and its marginal cost of capital (MCC) are *closest to*:

|  |  |  |
| --- | --- | --- |
|  | **Debt Break Point #2** | **MCC** |
| **A)** | $200 million | 8.4% |
| **B)** | $100 million | 8.4% |
| **C)** | $200 million | 10.0% |

8) \_\_\_\_\_\_

A) Option A   
 B) Option B  
 C) Option C

**9)** Ashlyn Lutz makes the following statements to her supervisor, Paul Ulring, regarding the basic principles of capital budgeting:  
 Statement 1: The timing of expected cash flows is crucial for determining the profitability of a capital budgeting project.  
 Statement 2: Capital budgeting decisions should be based on the after-tax net income produced by the capital project.  
 Which of the following regarding Lutz’s statements is *most* accurate?

|  |  |  |
| --- | --- | --- |
|  | **Statement 1** | **Statement 2** |
| **A)** | Incorrect | Correct |
| **B)** | Correct | Correct |
| **C)** | Correct | Incorrect |

9) \_\_\_\_\_\_

A) Option A   
 B) Option B  
 C) Option C

**10)** The stakeholders *most likely* to be concerned with their legal liabilities are:

10) \_\_\_\_\_\_

A) directors.   
 B) regulators.  
 C) creditors.

**11)** Meredith Suresh, an analyst with Torch Electric, is evaluating two capital projects. Project 1 has an initial cost of $200,000 and is expected to produce cash flows of $55,000 per year for the next eight years. Project 2 has an initial cost of $100,000 and is expected to produce cash flows of $40,000 per year for the next four years. Both projects should be financed at Torch’s weighted average cost of capital. Torch’s current stock price is $40 per share, and next year’s expected dividend is $1.80. The firm’s growth rate is 5%, the current tax rate is 30%, and the pre-tax cost of debt is 8%. Torch has a target capital structure of 50% equity and 50% debt. If Torch takes on either project, it will need to be financed with externally generated equity which has flotation costs of 4%.  
 Suresh is aware that there are two common methods for accounting for flotation costs. The first method, commonly used in textbooks, is to incorporate flotation costs directly into the cost of equity. The second, and more correct approach, is to subtract the dollar value of the flotation costs from the project NPV. If Suresh uses the cost of equity adjustment approach to account for flotation costs rather than the correct cash flow adjustment approach, will the NPV for each project be overstated or understated?

|  |  |  |
| --- | --- | --- |
|  | **Project 1 NPV** | **Project 2 NPV** |
| **A)** | Understated | Understated |
| **B)** | Understated | Overstated |
| **C)** | Overstated | Overstated |

11) \_\_\_\_\_\_

A) Option A   
 B) Option B  
 C) Option C

**12)** Assume a firm uses a constant WACC to select investment projects rather than adjusting the projects for risk. If so, the firm will tend to:

12) \_\_\_\_\_\_

A) reject profitable, low-risk projects and accept unprofitable, high-risk projects.   
 B) accept profitable, low-risk projects and reject unprofitable, high-risk projects.  
 C) accept profitable, low-risk projects and accept unprofitable, high-risk projects.

**13)** The debt of Savanna Equipment, Incorporated has an average maturity of ten years and a BBB rating. A market yield to maturity is not available because the debt is not publicly traded, but the market yield on debt with similar characteristics is 8.33%. Savanna is planning to issue new ten-year notes that would be subordinate to the firm’s existing debt. The company’s marginal tax rate is 40%. The *most* appropriate estimate of the after-tax cost of this new debt is:

13) \_\_\_\_\_\_

A) More than 5.0%.   
 B) Between 3.3% and 5.0%.  
 C) 5.0%.

**14)** Hanson Aluminum, Incorporated is considering whether to build a mill based around a new rolling technology the company has been developing. Management views this project as being riskier than the average project the company undertakes. Based on their analysis of the projected cash flows, management determines that the project’s internal rate of return is equal to the company’s marginal cost of capital. If the project goes forward, the company will finance it with newly issued debt with an after-tax cost less than the project’s IRR. Should management accept or reject this project?

14) \_\_\_\_\_\_

A) Accept, because the marginal cost of the new debt is less than the project’s internal rate of return.   
 B) Reject, because the project reduces the value of the company when its risk is taken into account.  
 C) Accept, because the project returns the company’s cost of capital.

**15)** The financial manager at Genesis Company is looking into the purchase of an apartment complex for $550,000. Net after-tax cash flows are expected to be $65,000 for each of the next five years, then drop to $50,000 for four years. Genesis’ required rate of return is 9% on projects of this nature. After nine years, Genesis Company expects to sell the property for after-tax proceeds of $300,000. What is the respective internal rate of return (IRR) and net present value (NPV) on this project?

15) \_\_\_\_\_\_

A) 6.66%; −$64,170.   
 B) 7.01%; −$53,765.  
 C) 13.99%; $166,177.

**16)** A firm has $4 million in outstanding bonds that mature in four years, with a fixed rate of 7.5% (assume annual payments). The bonds trade at a price of $98 in the open market. The firm’s marginal tax rate is 35%. Using the bond-yield plus method, what is the firm’s cost of equity risk assuming an add-on of 4%?

16) \_\_\_\_\_\_

A) 13.34%.   
 B) 12.11%.  
 C) 11.50%.

**17)** The stakeholder theory of corporate governance is primarily focused on:

17) \_\_\_\_\_\_

A) the interests of various stakeholders rather than the interests of shareholders.   
 B) increasing the value a company.  
 C) resolving the competing interests of those who manage companies and other groups affected by a company’s actions.

**18)** A company prepares a chart with the net present value (NPV) profiles for two mutually exclusive projects with equal lives of five years. Project Jones and Project Smith have the same initial cash outflow and total undiscounted cash inflows, but 75% of the cash inflows for Project Jones occur in years 1 and 2, while 75% of the cash inflows for Project Smith occur in years 4 and 5. Which of the following statements is *most accurate* regarding these projects?

18) \_\_\_\_\_\_

A) Project Smith has a higher internal rate of return than Project Jones.   
 B) There is a range of discount rates in which the company should choose Project Jones and a range in which it should choose Project Smith.  
 C) There is a range of discount rates in which the optimal decision is to reject both projects.

**19)** Which of the following steps is *least likely* to be an administrative step in the capital budgeting process?

19) \_\_\_\_\_\_

A) Forecasting cash flows and analyzing project profitability.   
 B) Conducting a post-audit to identify errors in the forecasting process.  
 C) Arranging financing for capital projects.

**20)** A North American investment society held a panel discussion on the topics of capital costs and capital budgeting. Which of the following comments made during this discussion is the *least accurate*?

20) \_\_\_\_\_\_

A) Any given project’s NPV will decline when a breakpoint is reached.   
 B) An increase in the after-tax cost of debt may occur at a break point.  
 C) A project’s internal rate of return decreases when a breakpoint is reached.

**21)** Axle Corporation earned £3.00 per share and paid a dividend of £2.40 on its common stock last year. Its common stock is trading at £40 per share. Axle is expected to have a return on equity of 15%, an effective tax rate of 34%, and to maintain its historic payout ratio going forward. In estimating Axle’s after-tax cost of capital, an analyst’s estimate of Axle’s cost of common equity would be *closest* to:

21) \_\_\_\_\_\_

A) 9.2%.   
 B) 8.8%.  
 C) 9.0%.

**22)** Stolzenbach Technologies has a target capital structure of 60% equity and 40% debt. The schedule of financing costs for the Stolzenbach is shown in the table below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Amount of New Debt (in millions)** | **After-tax Cost of Debt** | **Amount of New Equity (in millions)** | **Cost of Equity** |
| **$0 to $199** | 4.5% | $0 to $299 | 7.5% |
| **$200 to $399** | 5.0% | $300 to $699 | 8.5% |
| **$400 to $599** | 5.5% | $700 to $999 | 9.5% |

Stolzenbach Technologies has breakpoints for raising additional financing at both:

22) \_\_\_\_\_\_

A) $400 million and $700 million.   
 B) $500 million and $700 million.  
 C) $500 million and $1,000 million.

**23)** An analyst with Laytech Corporation is evaluating two machines as possible replacements for an existing stamping machine. He estimates that machine 1 has a cost of $5 million and that purchasing it would produce a profitability index of 1.20. He estimates that machine 2 has a cost of $6 million and that purchasing it would produce a profitability index of 1.17. Based on these estimates he should conclude that:

23) \_\_\_\_\_\_

A) machine 2 should be chosen.   
 B) neither project is preferred to the other.  
 C) machine 1 should be chosen.

**24)** Which of the following is *most* accurate for two independent projects with conventional cash flows?

24) \_\_\_\_\_\_

A) An analyst will not encounter the problem of multiple IRRs.   
 B) A firm that rations investment capital will choose the one with the higher NPV.  
 C) The project with the higher IRR will also have the higher NPV.

**25)** Pfluger Company’s accounts payable department receives an invoice from a vendor with terms of 2/10 net 30. If Pfluger pays the invoice on its due date, the cost of trade credit is *closest* to:

25) \_\_\_\_\_\_

A) 27.9%.   
 B) 43.5%.  
 C) 44.6%.

**26)** With sales of $45 million, the operating earnings of Poston Industries are $3.8 million. Fixed operating costs are $4.2 million, net profit margin is 4.5%, and unit variable costs are $35.50. At the current level of sales, Poston’s degree of operating leverage is *closest* to:

26) \_\_\_\_\_\_

A) 1.2.   
 B) 1.6.  
 C) 2.1.

**27)** Randox Industries has the following investment policy statement: "In order to achieve the safety and liquidity necessary in the investment of excess cash balances, the CFO or his designee may invest excess cash balances in 30-day U.S. Treasury bills, or in banker’s acceptances with maturities of less than 31 days or 30-day certificates of deposit, where the credit rating of the issuing bank is A+ or higher." This policy statement is:

27) \_\_\_\_\_\_

A) inappropriate because both banker’s acceptances and certificates of deposit are illiquid.   
 B) inappropriate because it is too restrictive.  
 C) appropriate because these are all safe, liquid securities.

**28)** An investment policy statement for a firm’s short-term cash management function would *least* appropriately include:

28) \_\_\_\_\_\_

A) procedures to follow if the investment guidelines are violated.   
 B) information on who is allowed to invest corporate cash.  
 C) a list of permissible securities.

**29)** A firm is choosing among three short-term investment securities:  
 Security 1: A 30-day U.S. Treasury bill with a discount yield of 3.6%.  
 Security 2: A 30-day banker’s acceptance selling at 99.65% of face value.  
 Security 3: A 30-day time deposit with a bond equivalent yield of 3.65%.  
 Based only on these securities’ yields, the firm would:

29) \_\_\_\_\_\_

A) prefer the time deposit.   
 B) prefer the banker’s acceptance.  
 C) prefer the U.S. Treasury bill.

**30)** Which of the following strategies is *most likely* to be considered good payables management?

30) \_\_\_\_\_\_

A) Paying trade invoices on the day they arrive.   
 B) Taking trade discounts only if the firm’s annual return on short-term investments is less than the discount percentage.  
 C) Paying invoices on the last day to still get the supplier’s discount for early payment.

**31)** Which of the following is *least likely* an indicator of a firm’s liquidity?

31) \_\_\_\_\_\_

A) Cash as a percentage of sales.   
 B) Amount of credit sales.  
 C) Inventory turnover.

**32)** An appropriate cash management strategy for a company that has a seasonally high need for cash prior to the holiday shopping season would *least likely* include:

32) \_\_\_\_\_\_

A) investing in U.S. Treasury notes at other times of the year because they are highly liquid.   
 B) allowing short-term securities to mature without reinvestment.  
 C) borrowing funds though a bank line of credit.

**33)** A firm has average days of receivables outstanding of 22 compared to an industry average of 29 days. An analyst would *most likely* conclude that the firm:

33) \_\_\_\_\_\_

A) has a lower cash conversion cycle than its peer companies.   
 B) has better credit controls than its peer companies.  
 C) may have credit policies that are too strict.

**34)** A banker’s acceptance that is priced at $99,145 and matures in 72 days at $100,000 has a(n):

34) \_\_\_\_\_\_

A) bond equivalent yield greater than its effective annual yield.   
 B) money market yield greater than its discount yield.  
 C) discount yield greater than its bond equivalent yield.

**35)** With respect to inventory management,:

35) \_\_\_\_\_\_

A) a decrease in a firm’s days of inventory on hand indicates better inventory management and can lead to increased profits.   
 B) an increase in days of inventory on hand can be the result of either good or poor inventory management.  
 C) a firm with inventory turnover higher than the industry average can be expected to have better profitability as a result.

**Answer Key**Test name: Corporate Finance

1) A

A break point refers to a level of new investment at which a component’s cost of capital changes. The formula for break point is:  
formula2.mml  
   
 As indicated, as the weight of a capital component in the capital structure increases, the break point at which a change in the component’s cost will decline. No computation is necessary, but when Hardcastle has 40% debt, the breakpoint is $600,000,000 / 0.4 = $1.5 billion. If Hardcastle’s debt increases to 50%, the breakpoint will decline to $600,000,000 / 0.5 = $1.2 billion.

2) A

WACC = (wd)(kd)(1 − t) + (wce)(kce)  
 WACC = (0.5)(6%)(1 − 0.33) + (0.5)(12%) = 8.0%  
 The increase in after-tax cash flows for each year is 3,000 × (1 − 0.33) = $2,010.  
 I = 8; N = 8; PMT = $2,010; CPT→PV = $11,550.74  
 NPV = PV income − cost = $11,550.74 − $10,000 = $1,550.74

3) A

Governments receive greater tax revenues when financial performance is excellent and profits are higher. Creditors do not receive extra returns for performance better than that is adequate to repay debt. Customers seek company stability and ongoing relationships with the company.

4) B

The key to this problem is identifying this as a NPV problem even though the first cash flow will not occur until the following year. Next, the year of each cash flow must be property identified; specifically: CF0 = $0; CF1 = −430,000; CF2−8 = +$200,000; CF9 = −$170,000.  
 One simply has to discount all of the cash flows to today at a 16% rate. NPV = $280,913.

5) C

Under the shareholder theory of corporate governance, practices are primarily those that support shareholder interests, while under the stakeholder theory of corporate governance, the interests of various affected groups are considered and balanced. Corporate governance practices and definitions vary across countries.

6) C

Marian’s first statement is correct. A breakpoint calculated as (amount of capital where component cost changes / weight of component in the WACC). The component cost of equity for Arlington will increase when the amount of new equity raised is $200 million, which will occur at ($200 million / 0.70) = $285.71 million, or $286 million of new capital.  
 Marian’s second statement is also correct. If Arlington wants to finance $600 million of total assets, the firm will need to raise $600 − $300 = $300 million of additional capital. Using the target capital structure of 70% equity and 30% debt, Arlington will need to raise $300 × 0.70 = $210 million in new equity and $300 × 0.30 = $90 million in new debt. Looking at the capital schedules, these levels of new financing correspond with rates of 9.0% and 4.2% for costs of equity and debt respectively, and the WACC is equal to (9.0% × 0.70) + (4.2% × 0.30) = 7.56%.

7) A

Stock prices reflect investor expectations for future investment and growth. A new positive-NPV project will increase stock price only if it was not previously anticipated by investors.

8) C

Debt break point #2 = $60 million / 0.30 = $200 million.  
 $135 million × 30% = $40.5 million new debt  
 $135 million × 70% = $94.5 million new equity  
 MCC = 4.0%(0.30) + 12.5%(0.70) = 9.95%.

9) C

Lutz’s first statement is correct. The timing of cash flows is important for making correct capital budgeting decisions. Capital budgeting decisions account for the time value of money. Lutz’s second statement is incorrect. Capital budgeting decisions should be based on incremental after-tax cash flows, not net (accounting) income.

10) A

Directors are legally responsible for their decisions and actions as board members. Neither regulators nor creditors face significant legal liabilities for their actions.

11) C

The incorrect method of accounting for flotation costs spreads the flotation cost out over the life of the project by a fixed percentage that does not necessarily reflect the present value of the flotation costs. The impact on project evaluation depends on the length of the project and magnitude of the flotation costs, however, for most projects that are shorter, the incorrect method will overstate NPV, and that is exactly what we see in this problem.  
 *Correct method of accounting for flotation costs:*  
 After-tax cost of debt = 8.0% (1 − 0.30) = 5.60%  
 Cost of equity = ($1.80 / $40.00) + 0.05 = 0.045 + 0.05 = 9.50%  
 WACC = 0.50(5.60%) + 0.50(9.50%) = 7.55%  
 Flotation costs Project 1 = $200,000 × 0.5 × 0.04 = $4,000  
 Flotation costs Project 2 = $100,000 × 0.5 × 0.04 = $2,000  
 NPV Project 1 = −$200,000 − $4,000 + (N = 8, I = 7.55%, PMT = $55,000, FV = 0 →CPT PV = $321,535) = $117,535  
 NPV Project 2 = −$100,000 − $2,000 + (N = 4, I = 7.55%, PMT = $40,000, FV = 0 →CPT PV = $133,823) = $31,823  
 *Incorrect Adjustment for cost of equity method for accounting for flotation costs:*  
 After-tax cost of debt = 8.0% (1 − 0.30) = 5.60%  
 Cost of equity = [$1.80 / $40.00(1 − 0.04)] + 0.05 = 0.0469 + 0.05 = 9.69%  
 WACC = 0.50(5.60%) + 0.50(9.69%) = 7.65%  
 NPV Project 1 = −$200,000 + (N = 8, I = 7.65%, PMT = $55,000, FV = 0 →CPT PV = $320,327) = $120,327  
 NPV Project 2 = −$100,000 + (N = 4, I = 7.65%, PMT = $40,000, FV = 0 →CPT PV = $133,523) = $33,523

12) A

The firm will reject profitable, low-risk projects because it will use a hurdle rate that is too high. The firm should lower the required rate of return for lower risk projects. The firm will accept unprofitable, high- risk projects because the hurdle rate of return used will be too low relative to the risk of the project. The firm should increase the required rate of return for high-risk projects.

13) A

The after-tax cost of debt similar to Savanna’s existing debt is kd(1 − t) = 8.33% (1 − 0.4) = 5.0%. Because the anticipated new debt will be subordinated in the company’s debt structure, investors will demand a higher yield than the existing debt carries. Therefore, the appropriate after-tax cost of the new debt is more than 5.0%.

14) B

The marginal (or weighted average) cost of capital is the appropriate discount rate for projects that have the same level of risk as the firm’s existing projects. For a project with a higher degree of risk, cash flows should be discounted at a rate higher than the firm’s WACC. Since this project’s IRR is equal to the company’s WACC, its NPV must be zero if the cash flows are discounted at the WACC. If the cash flows are discounted at a rate higher than the WACC to account for the project’s higher risk, the NPV must be negative. Therefore, the project would reduce the value of the company, so management should reject it. A company considers its capital raising and budgeting decisions independently. Each investment decision must be made assuming a WACC which includes each of the different sources of capital and is based on the long-run target weights.

15) B

IRR Keystrokes: CF0 = −$550,000; CF1 = $65,000; F1 = 5; CF2 = $50,000; F2 = 3; CF3 = $350,000; F3 = 1.  
 NPV Keystrokes: CF0 = −$550,000; CF1 = $65,000; F1 = 5; CF2 = $50,000; F2 = 3; CF3 = $350,000; F3 = 1.  
 Compute NPV, I = 9.  
 *Note: Although the rate of return is positive, the IRR is less than the required rate of 9%. Hence, the NPV is negative.*

16) B

If the bonds are trading at $98, the required yield is 8.11%, and the market value of the issue is $3.92 million. To calculate this rate using a financial calculator (and figuring the rate assuming a $100 face value for each bond), N = 4; PMT = 7.5 = (0.075 × 100); FV = 100; PV = −98; CPT → I/Y = 8.11. By adding the equity risk factor of 4%, we compute the cost of equity as 12.11%.

17) C

Resolving the conflicting interests of both shareholders and other stakeholders is the focus of corporate governance under stakeholder theory. Shareholders are among the groups whose interests are considered under stakeholder theory.

18) C

If the total undiscounted cash flows from two projects are equal, their NPV profiles intersect the vertical axis at the same value. The NPV profile will have a steeper slope for Project Smith, which has more of its cash inflows occurring later in its life, and therefore the IRR of Project Smith (its intersection with the horizontal axis) must be less than the IRR of Project Jones. The NPV for Project Jones will be greater at any rate of discount, and Project Jones will be preferred over the entire range. However, if the discount rate applied to the cash flows is greater than the IRR of Project Jones, both projects will have negative NPVs and the company should reject both of them.

19) C

Arranging financing is not one of the administrative steps in the capital budgeting process. The four administrative steps in the capital budgeting process are:  
 1.Idea generation  
 2.Analyzing project proposals  
 3.Creating the firm-wide capital budget  
 4.Monitoring decisions and conducting a post-audit

20) C

The internal rate of return is independent of the firm’s cost of capital. It is a function of the amount and timing of a project’s cash flows.

21) A

We can estimate the company’s expected growth rate as ROE × (1 − payout ratio): g = 15% × (1 − 2.40/3.00) = 3%  
 The expected dividend next period is then £2.40(1.03) = £2.47. Based on dividend discount model pricing, the required return on equity is 2.47 / 40 + 3% = 9.18%.

22) C

Stolzenbach will have a break point each time a component cost of capital changes, for a total of three marginal cost of capital schedule breakpoints.  
 Break pointDebt > $200mm = ($200 million ÷ 0.4) = $500 million  
 Break pointDebt > $400mm = ($400 million ÷ 0.4) = $1,000 million  
 Break pointEquity > $300mm = ($300 million ÷ 0.6) = $500 million  
 Break pointEquity > $700mm = ($700 million ÷ 0.6) = $1,167 million

23) A

The NPV of purchasing machine 1 is 1.20(5 million) − 5 million = 1 million. The NPV of purchasing machine 2 is 1.17(6 million) − 6 million = 1.02 million. Parker should choose machine 2 because it has the higher NPV.

24) A

The problem of multiple IRRs is encountered only when the cash flows have an unconventional pattern.

25) C

"2/10 net 30" is a discount of 2% of the invoice amount for payment within 10 days, with full payment due in 30 days. Cost of trade credit on day 30 =  
formula4.mml

26) C

Operating earnings = EBIT = Sales − TVC − Fixed operating costs  
formula6.mml

27) B

The policy statement is inappropriate because it is too restrictive. A policy statement should focus on meeting the specific safety and liquidity needs of the firm but should also allow the flexibility to increase yield within these constraints. There are many other securities potentially suitable for cash management that would provide equivalent or better liquidity and safety of principal at least equivalent to that of the securities issued by A+ rated banks.

28) C

An investment policy statement typically begins with a statement of the purpose and objective of the investment portfolio, some general guidelines about the strategy to be employed to achieve those objectives, and the types of securities that will be used. A list of permitted securities for investment would be limited and likely too restrictive. A list of permitted security types is appropriate and can provide the necessary flexibility to increase yield within the safety and liquidity constraints appropriate for the firm.

29) B

We can compare the yields of these securities on any single basis. The preferred basis is the bond equivalent yield.  
 Security 1 = discount is 3.6% (30 / 360) = 0.3%  
 BEY = (0.3 / 99.7) (365 / 30) = 3.661%  
 BEY of Security 2 = (0.35 / 99.65) × (365 / 30) = 4.273%  
 BEY of Security 3 = 3.65%

30) C

Paying invoices on the last day to get a discount (for early payment) is likely the most advantageous strategy for a firm. If the annualized percentage cost of not taking advantage of the discount is less than the firm’s short-term cost of funds, it would be advantageous to pay on the due date. However, the discount percentage is not an annualized rate, so it cannot be compared directly to the firm's *annual* return on short-term investments. Paying prior to the discount cut-off date or prior to the due date sacrifices interest income for no advantage.

31) B

No inferences about liquidity are warranted based on this measure. A firm may have higher credit sales than another simply because it has more sales overall. Cash as a proportion of sales and inventory turnover are indicators of liquidity.

32) A

Treasury notes have maturities between 2 and 10 years and, thus, have maturities longer than those of securities suitable for cash management. Allowing short-term securities to mature without reinvesting the cash generated would be one way to meet seasonal cash needs. Short-term bank borrowing or issuing commercial paper that can be paid off when holiday sales generate cash would be appropriate strategies for dealing with a predictable short-term need for cash.

33) C

The firm’s average days of receivables should be close to the industry average. A significantly lower average days receivables outstanding, compared to its peers, is an indication that the firm’s credit policy may be too strict and that sales are being lost to peers because of this. We can not assume that stricter credit controls than the average for the industry are “better.” We cannot conclude that credit sales are less, they may be more, but just made on stricter terms. The average days of receivables are only one component of the cash conversion cycle.

34) B

The money market yield is the holding period yield times 360/72 and is always greater than the discount yield which is the actual discount from face value times 360/72, since the holding period yield is always greater than the percentage discount from face value. A security’s discount yield and its money market yield are always less than its bond equivalent yield, and its effective annual yield is always greater than its bond equivalent yield.

35) B

An increase in inventory could indicate poor sales and an accumulation of obsolete items or could be the result of a conscious effort to have adequate supplies to avoid losses from not having items to satisfy customer orders (stock outs). Higher-than-average inventory turnover could indicate better inventory management or could indicate that a less than optimal inventory is being maintained by the company.