ĐẠI HỌC QUỐC GIA HÀ NỘI
TRƯỜNG ĐẠI HỌC KINH TẾ

Cộng hòa xã hội chủ nghĩa Việt Nam
Độc lập – Tự do – Hạnh phúc

FINAL EXAM

Training program: Full time

Subject: Corporate Finance 1 (BSA2018-E), 3 credits

Test time : 90 minutes

Test No 4

1: According to the Statement of Cash Flows, a decrease in accounts receivable will _____ the cash flow from _____ activities.

A. decrease; operating
B. decrease; financing
C. increase; operating
D. increase; financing

2: The cash flow of a firm which is available for distribution to the firm's creditors and stockholders is called the

A. operating cash flow.
B. net capital spending.
C. net working capital.
D. cash flow from assets.

3: NoGrowth industries presently pays an annual dividend of $1.50 per share and it is expected that these dividend payments will continue indefinitely. If NoGrowth's equity cost of capital is 12%, then the value of a share of NoGrowth's stock is closest to:

A. $10.00
B. $15.00
C. $14.00
D. $12.50

4: The Connors Company's last dividend was $1.00. Its dividend growth rate is expected to be constant at 15% for 2 years, after which dividends are expected to grow at a rate of 10% forever. Connors' required return (r_S) is 12%. What is Connors' current stock price?

A. $54.91
B. $56.82
C. $58.15
D. $60.07

5: Which of the following is **not** a capital component when calculating the weighted average cost of capital (WACC)?

A. Long-term debt.
B. Accounts payable.
C. Retained earnings.
D. Common stock.

3. $D_0 = \$1.5$ / share $\qquad g = 0$

Cost of capital $= 12\%$.

$\Rightarrow$ Value of a share of NoGrowth's stock = ?

$= \dfrac{\text{Annual dividend}}{\text{Required return} - \text{Growth rate}}$

$= \dfrac{1.5}{12\% - 0} = 12{,}5$

4. 0 — 15% — 1 — 15% — 2 — 10% — 3

$D_0 = \$1.00$

$D_1 = D_0(1+g) = 1{,}15$

$D_2 = D_1(1+g) = 1{,}3225$

$r_s = 12\%$

$D_3 = D_2(1+g) = 1{,}45475$

$P_2 = \dfrac{D_3}{r_s - g} = \dfrac{1{,}45475}{12\% - 10\%} = 72{,}7375$

$P_0 = \dfrac{1{,}15}{1{,}12^1} + \dfrac{1{,}3225}{1{,}12^2} + \dfrac{\$72{,}7375}{1{,}12^2}$

$= \$60{,}7$.

6: Which of the following statements is **correct**?

A. When calculating the cost of preferred stock, a company needs to adjust for taxes, because preferred stock dividends are deductible by the paying corporation.

B. All else equal, an increase in a company's stock price will increase its marginal cost of retained earnings, r_s.

C. All else equal, an increase in a company's stock price will increase its marginal cost of new common equity, r_e.

D. If a company's tax rate increases but the YTM on its noncallable bonds remains the same, the after-tax cost of its debt will fall.

7: As a member of Midwest Corporation's financial staff, you must estimate the Year 1 operating cash flow for a proposed project with the following data. What is the Year 1 operating cash flow?

Sales revenues, each year	$35,000
Depreciation	$10,000
Other operating costs	$17,000
Interest expense	$4,000
Tax rate	35.0%

A. $12,380
B. $15,200
C. $13,718
D. $14,440

8: You just purchased some equipment that is classified as 5-year property for MACRS. The equipment cost $147,000. What will the book value of this equipment be at the end of 4 years should you decide to resell the equipment at that point in time?

MACRS 5-year property

Year	Rate
1	20.00%
2	32.00%
3	19.20%
4	11.52%
5	11.52%
6	5.76%

A. $8,467.20
B. $25,401.60
C. $42,336.00
D. $121,598.40

9: If you extend credit for a one-time sale to a new customer you risk an amount equal to

A. the sales price of the item sold.
B. the variable cost of the item sold.
C. the fixed cost of the item sold.
D. the profit margin on the item sold.

7)

Sales	$35,000
Depreciation	($10,000)
Other operating costs	($17,000)
EBIT	$ 8000
Tax rate	(35%.8000)
	$ 5200
Depreciation	$ 10,000
OCF	$15,200

8)

Year.	Rate
1	20%
2	32%
3	19,2%
4	11,52%
	82,72%

⇒ Book value of the equipment be at the end of 4 years:

= $ 147,000 (1 − 82,72%)

= $ 25,401.6.

10: The EOQ model is designed to minimize

A. production costs.

B. the total costs of holding inventory.

C. the carrying costs of inventory.

D. the costs of replenishing inventory.

11: Cash flow to stockholders is defined as

A. the total amount of interest and dividends paid during the past year.

B. the change in total equity over the past year.

C. operating cash flow minus the cash flow to creditors.

D. dividend payments less net new equity raised

12: Canine Supply has sales of $2,200, total assets of $1,400, and a debt-equity ratio of 0.3. Its return on equity is 15%. What is the net income?

ROE = net income / common equity = 0,15

A. $138.16

B. $141.41

C. $152.09

D. $161.54

13: Northwest Lumber had a profit margin of 5.25%, a total assets turnover of 1.5, and an equity multiplier of 1.8. What was the firm's ROE?

A. 12.79%

B. 13.47%

C. 14.18%

D. 14.88%

14: Unsystematic risk

A. can be effectively eliminated by portfolio diversification.

B. is compensated for by the risk premium.

C. is measured by beta.

D. is measured by standard deviation.

15: Which one of the following is an example of unsystematic risk?

A. income taxes are increased across the board

B. a national sales tax is adopted

C. inflation decreases at the national level

D. consumer spending on entertainment decreased nationally

16: The dividend growth model

A. is only as reliable as the estimated rate of growth.

B. can only be used if historical dividend information is available.

C. considers the risk that future dividends may vary from their estimated values.

D. applies only when a firm is currently paying dividends.

17: The discount rate assigned to an individual project should be based on

A. the firm's weighted average cost of capital.

B. an average of the firm's overall cost of capital for the past five years.

C. the current risk level of the overall firm.

D. the risks associated with the use of the funds required by the project.

18: Which of the following statements is **false**?

A. Because value is lost when a resource is used by another project, we should include the

12) ROE = Return on equity

$$= \frac{\text{Net income}}{\text{sales}} \cdot \frac{\text{Sales}}{\text{Total assets}} \cdot (1 + \text{Debt-equity ratio})$$

$$\Leftrightarrow 0{,}15 = \frac{\text{Net income}}{\$2{,}200} \cdot \frac{\$2{,}200}{\$1{,}400} \cdot (1+0{,}3$$

$\Leftrightarrow$ Net income = \$ 161.54.

13)

ROE = Profit margin × Total asset turnover × Equity multiplier

$= 5{,}25 \times 1{,}5 \times 1{,}8$

$= 14.18\%$

opportunity cost as an incremental cost of the project.

B. Sunk costs are incremental with respect to the current decision regarding the project and should be included in its analysis.

C. Overhead expenses are associated with activities that are not directly attributable to a single business activity but instead affect many different areas of the corporation.

D. When computing the incremental earnings of an investment decision, we should include all changes between the firm's earnings with the project versus without the project.

19: The length of time a firm must wait to recoup the money it has invested in a project is called the

A. internal return period.
B. payback period.
C. profitability period.
D. valuation period.

20: You are analyzing a project and have gathered the following data:

0 1 2 3 4
175 56,4 61,8 72 75

Year	Cash flow	
0	-$175,000	
1	$56,400	
2	$61,800	
3	$72,000	
4	$75,000	
Required payback period		2.5 years
Required AAR		11.5 percent
Required return		14.5 percent

Based on the payback period of _____ years for this project, you should _____ the project.

A. 2.79; accept
B. 3.79; accept
C. 2.79; reject
D. 3.79; reject

21: The internal rate of return is defined as the

A. rate of return a project will generate if the project is financed solely with internal funds.
B. discount rate that equates the net cash inflows of a project to zero.
C. discount rate which causes the net present value of a project to equal zero.
D. discount rate that causes the profitability index for a project to equal zero.

22: Under the current cash sales only policy Blue Bird, Inc., will sell 215 units a month at a price of $469 each. The variable cost per unit is $305 and the monthly interest rate is 1.7%. Based on a recent survey, the firm believes it can sell an additional 36 units per month if it offers a net 30 credit policy. What is the net present value of the switch using the one-shot approach?

A. $212,806
B. $235,479
C. $248,946
D. $251,118

23: The BAT model is used to
A. maximize the benefits of leverage.
B. determine the optimal cash position of a firm.
C. eliminate all daily cash surpluses.
D. maximize the opportunity costs of holding cash.

24: A firm has $16,718 in outstanding checks that have not cleared the bank. The firm also has $13,450 in deposits that have been recorded by the firm but not by the bank. The current available balance is $11,407. What is the status of the net float?
A. net collection float of $2,043
B. net collection float of $13,450
C. net disbursement float of $3,268
D. net disbursement float of $5,311

25: The Burger Stop spends $52,000 a week to pay bills and maintains a lower cash balance limit of $60,000. The standard deviation of the disbursements is $7,500. The applicable weekly interest rate is 0.04% and the fixed cost of transferring funds is $50. What is your optimal average cash balance based on the Miller-Orr model?
A. $79,116
B. $83,208
C. $110,315
D. $249,624

II. Essay:

26: ~~Why is~~ the Du Pont identity a valuable tool for analyzing the performance of a firm ? Discuss the types of information it reveals compared to ROE considered by itself.

27: Net working capital.In our capital budgeting examples, we assume that a firm would recover all of the working capital it invested in a project. Is this a reasonable assumption? When might it not be valid. ? Explain your answers.

28: Last month, a company announced that it would stretch out its bill payments to 45 days from 30 days. The reason given was that the company wanted to "control costs and optimize cash flow". The increased payable period will be in effect for all of the company's suppliers. Exactly what is the cash benefit to the company from this change ?

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24) Net disbursement float = Net float − Deposits

$= \text{Disbursement float} + \text{Collection float} - \text{Deposits}$

$= (13{,}950 - 11{,}407) + 16{,}718 - 13{,}950$

$= \$18{,}761 - 13{,}950$

$= \$5{,}311$

25) L = Cash balance limit = \$60,000

$\sigma = \$7{,}500$

K = Interest rate = 0,04%

F = fixed cost of transferring funds = \$50.

Cash balance target:

$$Z = \sqrt[3]{\frac{3F\sigma^2}{4k}} + L$$

$$= \sqrt[3]{\frac{3 \cdot 50 \cdot 7{,}500^2}{4 \cdot 0{,}04\%}} + 60{,}000$$

$$= 77{,}405.95813$$

$$\text{Average cash balance} = \frac{4 \cdot Z - L}{3}$$

$$= \frac{4 \times 77{,}405.95813 - 60{,}000}{3}$$

$$\simeq \$83{,}208$$