

NEW YORK UNIVERSITY
ROBERT F. WAGNER GRADUATE SCHOOL OF PUBLIC SERVICE
P11.1021: Financial Management
Midterm Examination
Professors Rose, Forsythe, and Calabrese
Fall 2006

Name: _____

Student ID: _____

PLEASE CIRCLE YOUR SECTION

TUESDAY	TUESDAY	WEDNESDAY	WEDNESDAY
12:30 pm	6:20 pm	12:30 pm	6:20 pm

Directions:

- 1) As a courtesy to your classmates, please turn off electronic devices such as cell phones and pagers. You have 135 minutes to complete the exam.
- 2) Print your initials at the top of each page.
- 3) You may use one page of notes. Place all other written materials on the floor.
- 4) You may use, but not share, a calculator. Remember to clear your calculator before each calculation (2nd F, then C – CE). If you do not, you may get the wrong answers.
- 5) Look through the entire exam before you begin.
- 6) The points for each question are indicated in parentheses next to the question.
- 7) Hand in your exam plus all other papers (including your one page of notes).

Good Luck!

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This section for Graders:

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____

7 _____ 8 _____

Total Points _____ X 40% = Course Points _____

4. (10 points) The Port Authority of New York and New Jersey (PANYNJ) is deciding whether to purchase cranes manufactured by Paceco or Tripoli for use in its marine terminals. While the Tripoli cranes have a lower purchase price, they are more expensive to maintain annually and must be replaced sooner than the Paceco cranes. The Tripoli cranes have useful lives of 5 years, while the Paceco cranes have useful lives of 10 years. The cash flows related to each of the choices are presented below. If the PANYNJ's cost of capital is 7%, which company's cranes should the PANYNJ buy? Show your work.

Year	Paceco	Tripoli
0	(300,000)	(125,000)
1	(20,000)	(30,000)
2	(20,000)	(30,000)
3	(20,000)	(30,000)
4	(20,000)	(30,000)
5	(20,000)	(30,000)
6	(20,000)	
7	(20,000)	
8	(20,000)	
9	(20,000)	
10	(20,000)	
Total	(500,000)	(370,000)

5. (8 points) Exactly 20 years ago, the State of New York issued a bond with a 30-year maturity, a 10% coupon, and a face value of \$1 million. The bond pays interest every six months.
- a) (5 points) If the current market interest rate is 7%, how much is the bond worth today?
- b) (3 points) Show the Excel formula that would correctly solve this problem.
6. (5 points) Against the odds, you won the New York State Lottery. The jackpot was advertised as \$40 million. As the winner, you are entitled to payments of \$2 million at the beginning of each year for 20 years (\$2 million x 20 years = \$40 million). If you can earn 5% on your savings per year, how much is the lottery prize worth to you?

7. (13 points) The Gotham City Police Department has an officer labor expense budget for the month of October 2006 of \$360,000. It expects to process 2,400 criminals per month, that each criminal will take 3 hours to process, and that each officer will be paid \$50 per hour. During October 2006, the Gotham City police actually processed 3,200 criminals, logged 8,000 police hours, and incurred monthly labor expenses of \$448,000.

a) (10 points) Compute the total variance, volume variance, price variance, and quantity variance for Gotham City's Police Department. Also indicate whether each variance was favorable or unfavorable.

b) (3 points) Briefly explain what your variances mean, in plain language.

8. (25 points) Centers for Bright Horizons (CBH) provide day care services to low-income families. CBH bills the State for its services under a service contract. Billings for the first four months of 2007 are anticipated to be as follows:

January	February	March	April
\$220,000	\$200,000	\$240,000	\$230,000

CBH finds that it collects 25% of the amounts billed in the month of service, with the balance collected in the month following service.

CBH is planning to acquire a new building as an additional site for its services in March 2007. The full \$250,000 purchase cost of the building will be financed with a mortgage loan, with the first payment due in April 2007. CBH anticipates a February 28, 2007 cash balance of \$26,000.

CBH anticipates the following expenses and disbursements for the month of March 2007:

Personnel Payments \$170,000
Personnel Expenses \$160,000
Payments to suppliers \$ 45,000
Supplies Expense \$ 48,000
Depreciation Expense \$ 12,000
Interest Expense \$ 6,000

(20 points) Prepare an operating budget and a cash budget for CBH for the month of March 2007.

(5 points) Which budget gives a better indication of the organization's operational and economic sustainability, the operating budget or the cash budget? Why?

9. (8 points) City Hospital is considering establishing a childhood asthma center in the Bronx. The cost of purchasing and renovating the building is estimated at \$2 million. The projected cash flows generated by the new asthma center over the next 5 years are:

Year	Cash In	Cash Out
1	1,200,000	800,000
2	1,200,000	800,000
3	1,200,000	800,000
4	1,300,000	900,000
5	1,300,000	1,000,000

Assuming a 5-year useful life, zero salvage value, and an 8% cost of capital, evaluate from a financial perspective whether City Hospital should pursue this project.

10. (4points) Bills that have been sent out by an organization but not yet collected are referred to as _____. A(n) _____ is a report for management that indicates how long these bills have been outstanding.

11. (2 points) Payable are amounts owed by an organization that have not yet been paid. Name two specific payables accounts.
12. (8 points) As a manager, you are tasked with cutting \$100,000 from your department's budget next year. The department has \$800,000 in personnel costs for staff, \$150,000 of rent expenses, \$125,000 of general administrative expenses allocated from the executive office, and \$50,000 of miscellaneous office-supply expenses. The administrative expenses exist regardless of your department's size; if your department gives up office space, another department will take over the space and the cost.

List at least two cost-cutting measures you can adopt to save your organization (not just your department) \$100,000?

13. (3 points) The amount of the original cost of a capital asset allocated as an expense each year during its useful life is called:
- i. an encumbrance
 - ii. appropriation
 - iii. depreciation
 - iv. recognition