National Federation of Junior Philippine Institute of Accountants

2011 NATIONAL CPA MOCK BOARD EXAMINATION

In partnership with the Professional Review & Training Center, Inc. and Isla Lipana & Co.

MANAGEMENT ADVISORY SERVICES

INSTRUCTIONS: Select the best answer for each of the following questions. Mark only one answer for each item on the answer sheet provided. AVOID ERASURES. Answers with erasures may render your examination answer sheet INVALID. Use PENCIL NO.2 only. GOODLUCK!

1. Which of the following is not classifiable as a management advisory service by CPA?
   a. Systems design.
   b. Project feasibility study.
   c. Make or buy analysis.
   d. Assistance in budget preparation.

2. The primary purpose of management advisory services is:
   a. To conduct special studies, preparation of recommendations, development of plans and programs, and provision of advice and assistance in their implementation.
   b. To provide services or to fulfill some social need.
   c. To improve the client's use of its capabilities and resources to achieve the objectives of the organization.
   d. To earn the best rate of return on resources entrusted to its care with safety of investment being taken into account and consistent with the firm's social and legal responsibilities.

3. A cost system that first traces costs to activities and then traces cost from activities to products
   a. Job order cost system.
   b. Process cost system.
   c. Activity-based cost system.
   d. Flexible cost system.

4. The payback method assumes that all cash inflows are reinvested to yield a return equal to
   a. Zero
   b. the Discount Rate
   c. The Time-Adjusted-Rate-of-Return
   d. The Cost-of-Capital

5. Why do the NPV method and the IRR method sometimes produce different rankings of mutually exclusive investment projects?
   a. The NPV method does not assume reinvestment of cash flows while the IRR method assumes the cash flows will be reinvested at the internal rate of return.
   b. The NPV method assumes a reinvestment rate equal to the discount rate while the IRR method assumes a reinvestment rate equal to the internal rate of return.
   c. The IRR method does not assume reinvestment of the cash flows while the NPV assumes the reinvestment rate is equal to the discount rate.
   d. The NPV method assumes a reinvestment rate equal to the bank loan interest rate while the IRR method assumes a reinvestment rate equal to the discount rate.

6. The least risky strategy for converting from a manual to a computerized accounts receivable system would be a
   a. Direct conversion   c. Parallel conversion
   b. Pilot Conversion   d. Data based conversion

7. The batch processing of business transactions can be the appropriate mode when
   a. the sequence of master file records is not relevant
   b. timeliness is a major issue
   c. a single handling of the data is desired
   d. economy of scale can be gained because of high volumes of transactions

8. An integrated set of computer programs that facilitates the creation, manipulation, and querying of integrated files is called a(n)
   a. Compiler
   b. Operating system
   c. Assembly language
   d. Database management system

9. Opportunity costs:
   a. Are treated as period costs under variable costing.
   b. Have already been incurred as a result of past action.
   c. Are benefits that could have been obtained by following another course of action.
   d. Do not vary among alternative courses of action.

10. Return on investment (ROI) is a term often used to express income earned on capital invested in a business unit. A company's ROI would be increased if
    a. Sales increased by the same peso amount as expenses and total assets increased.
    b. Sales remained the same and expenses were reduced by the same peso amount that total asset increased.
    c. Sales decreased by the same peso amount that expenses increased.
    d. Sales and expenses increased by the same percentage that total assets increased.

11. The ratio that measures a firm's ability to generate earnings is
    a. Times interest earned.
    b. Sales to working capital.
    c. Days' sales in receivables.
    d. Operating asset turnover.

12. When a firm prepares financial reports by using absorption costing, it may find that
    a. Profits will always increase with increase in sales.
    b. Profits will always decrease with decreases in sales.
    c. Profit may decrease with increased sales even if there is no change in selling price and costs.
    d. Decreased output and constant sales result in increased profit.

13. The Liberal Marketing Co., is expecting an increase of fixed costs by P78,750 upon moving their place of business to the downtown area. Likewise it is anticipating that the selling price per unit and the variable expenses will not change. At present, the sales volume necessary to breakeven is P750,000 but with the expected increase in fixed costs, the sales volume necessary to breakeven would go up to P975,000. Based on these projections, what

were the total fixed costs before the increase of P78,750?

a. P341,250 c. P183,750
b. P262,500 d. P300,000

14. Bacolod Corporation had sales of P120,000 for the month of May. It has a margin of safety ratio of 25 percent, and after-tax return on sales of 6 percent. The company assumes its sales constant every month. If the tax rate is 40 percent, how much is the annual fixed costs?

a. P36,000 c. P432,000
b. P90,000 d. P360,000

15. At 40,000 units of sales, Luna Corporation had an operating loss of P3.00 per unit. When sales were 70,000 units, the company had a profit of P1.20 per unit. The number of units to breakeven is

a. P 35,000 c. P52,500
b. P 45,000 d. P57,647

16. The manager of Seven Store reviewed the following data:

	Fruits	Meat	Canned Products
Contribution margin ratio	40%	50%	40%
Sales mix in pesos	20%	30%	50%

Fixed costs, P1,290,000 per month.
The breakeven sales for each month is

A. P1,677,000 C. P4,500,000
B. P3,000,000 D. P6,000,000

17. Drive Me, Inc. has a total of 2,000 rooms in its nationwide chain of hotels. On the average, 70 percent of the rooms are occupied each day. The company's operating costs are P21 per occupied room per day at this occupancy level, assuming a 30-day month. This P21 figure contains both variable and fixed cost elements. During October, the occupancy dropped to only 45 percent. A total of P792,000 in operating cost was incurred during the month.

What would be the expected operating costs, assuming that the occupancy rate increases to 60 percent during November?

a. P1,056,000 c. P846,000
b. P 756,000 d. P829,500

18. The following data relate to Gala Company which sells a single product:

Unit selling price	P 20.00
Purchase cost per unit	11.00
Sales commission, 10% of selling price	2.00
Monthly fixed costs	P80,000

The firm's salespersons would like to change their compensation from a 10 percent commission to a 5 percent commission plus P20,000 per month in salary. They now receive only commissions.
At what sales volume would the two compensation plans be indifferent?

a. 12,500 c. 20,000
b. 22,222 d. 22,860

19. Hello Company's cost allocation and product costing procedures follow activity-based costing principles. The following activities have been identified and classified as being either value-adding or non-value adding as to each product.

1. Raw materials storage activity
2. Design engineering activity
3. Drill press activity
4. Heat treatment activity
5. Quality control inspection activity
6. Issuance of purchase order activity

How are the foregoing activities classified?

	Value-adding	Non-value adding
a.	1, 2, 5, 6	3, 4
b.	1, 2, 4	3, 5, 6
c.	2, 4, 5	1, 3, 6
d.	2, 3, 4	1, 5, 6

20. The Oilfield plant has two categories of overhead: maintenance and inspection. Costs expected for these categories for the coming year are as follows:

Maintenance	P100,000
Inspection	150,000

The plant currently applies overhead using direct labor hours and expected capacity of 50,000 direct labor hours. The following data have been assembled for use in developing a bid for a proposed job:

Direct materials	P1,000
Direct labor	P4,000
Machine hours	500
Number of inspections	4
Direct labor hours	800

Total expected machine hours for all jobs during the year is 25,000, and the total expected number of inspections is 1,500.

Using activity-based costing and the appropriate activity drivers, the total cost of the potential job would be

a. P2,400 c. P7,400
b. P3,600 d. P7,750

21. The cost to manufacture an unfinished unit is P40 (P30 variable and P10 fixed). The selling price per unit is P50. The company has unused production capacity and has determined that units could be finished and sold for P65 with an increase in variable costs of 40%. What is the additional net income per unit to be gained by finishing the unit?

a. P 3 c. P15
b. P10 d. P12

22. Jar Division of Handy, Inc. expects the following result for 2004:

Unit sales	70,000
Unit selling price	P 10
Unit variable cost	P 4
Total fixed cost	
Total fixed costs	P300,000
Total investment	P500,000

The minimum required ROI is 15 percent, and divisions are evaluated on residual income. A foreign customer has approached Jar's manager with an offer to buy 10,000 units at P7 each. If Jar accepts the order, it would not lose any of the 70,000 units at the regular price. Accepting the order would increase fixed costs by P10,000 and investment by P40,000.
What is the minimum price that Jar could accept for the order and still maintain its expected residual income?

a. P5.00 c. P4.75
b. P5.60 d. P9.00

23. Care Products Company is considering a new product that will sell for P100 and have a variable cost of P60. Expected volume is 20,000 units. New

equipment costing P1,500 and having a five-year useful life and no salvage value is needed, and will be depreciated using the straight-line method. The machine has cash operating costs of P20,000 per year. The firm is in the 40 percent tax bracket and has cost of capital of 12 percent. The present value of 1, end of five periods is 0.56743; present value of annuity of 1 for 5 periods is 3.60478.
Suppose the 20,000 estimated volume is sound, but the price is in doubt. What is the selling price (rounded to nearest peso) needed to earn a 12 percent internal rate of return? **BONUS**

a. P81.00 c. P70.00
b. P85.00 d. P90.00

24. Jap Company's unit cost of manufacturing and selling a given item at an activity level of 10,000 units per month are:

Manufacturing costs	
Direct materials	P39
Direct labor	6
Variable overhead	8
Fixed overhead	9
Selling expenses	
Variable	30
Fixed	11

The company desires to seek an order for 5,000 units from a foreign customer. The variable selling expenses will be reduced by 40%, but the fixed costs for obtaining the order will be P20,000. Domestic sales will not be affected by the order.

The minimum break-even price per unit to be considered on this special sale is

a. P71 c. P69
b. P75 d. P84

25. Below are a company's monthly unit costs to manufacture and market a particular product.

Manufacturing Costs:		
Direct materials		P2.00
Direct labor		2.40
Variable indirect		1.60
Fixed indirect	1.00	
Marketing Costs:		
Variable		3.00
Fixed		1.50

The company must decide to continue making the product or buy it from an outside supplier. The supplier has offered to make the product at the same level of quality that the company can make it. Fixed marketing costs would be unaffected, but variable marketing costs would be reduced by 30% if the company were to accept the proposal. What is the maximum amount per unit that the company can pay the supplier without decreasing its operating income?

a. P8.50 c. P7.75
b. P6.75 d. P6.90

26. Shyr Company is a chemical manufacturer that supplies various products to industrial users. The company plans to introduce a new chemical solution called Bysap, for which it needs to develop a standard product cost. The following labor information is available on the production of Bysap.

a. The product, which is bottled in 10-liter containers, is primarily a mixture of Byclyn, salex, and protex.
b. The finished product is highly unstable, and one 10-liter batch out of six is rejected at final inspection. Rejected batches have no commercial value and are thrown out.
c. It takes a worker 35 minutes to process one 10-liter batch of Bysap. Employees work on eight-hour a day, including one hour per day for rest breaks and cleanup.

What is the standard labor time to produce one 10-liter batch of Bysap?

a. 35 minutes c. 48 minutes
b. 40 minutes d. 45 minutes

27. ABC Electronics has the following standard costs and other data:

	Part Beta	Part Zeta
Direct materials	P 4.00	P80.00
Direct labor	10.00	47.00
Factory overhead	40.00	20.00
Unit standard cost	P54.00	**P147.00**
Units needed per year	6,000	8,000
Machine hours per unit	4	2
Unit cost if purchased	P50	P150.00

In past years, ABC has manufactured all of its required components; however, this year only 30,000 hours of otherwise idle machine time can be devoted to the production of components. Accordingly, some of the parts must be purchased from outside suppliers. In producing parts, factory overhead is applied at P10 per standard machine hour. Fixed capacity costs that will not be affected by any make-or-buy decision represent 60% of the applied overhead.
The 30,000 hours available machine time are to be scheduled so that ABC realizes maximum potential cost savings. The relevant unit production costs that should be considered in the decision to schedule machine time are:

a. P54.00 for Beta and P147.00 for Zeta
b. P50.00 for Beta and P150.00 for Zeta
c. P14.00 for Beta and P127.00 for Zeta
d. P30.00 for Beta and P135.00 for Zeta

28. Zapatero, Inc. operates a chain of shoe stores around the country. The stores carry many styles of shoes that are all sold at the same price. To encourage sales personnel to be aggressive in their sales efforts, the company pays a substantial sales commission on each pair of shoes sold. Sales personnel also receive a small basic salary.
The following cost and revenue data relate to Store 9 and are typical of the company's many sales outlets:

Selling price	P800
Variable expenses:	
Invoice costs	P360
Sales commission	140
	P500
Fixed expenses per year:	
Rent	P1,600,000
Advertising	3,000,000
Salaries	1,400,000
Total	P6,000,000

The company is considering eliminating sales commissions entirely in its stores and increasing fixed salaries by P2,142,000 annually.
If this change is made, what will be the number of pairs of shoes to be sold by Store 9 to be indifferent to commission basis?

a. 25,300 c. 18,505
b. 15,300 d. 21,000

29. Liquid Company manufactures fire hydrants in Oriental Mindoro. The following information pertains to operations during the month of May:

Processing time (average per batch)	8.0 hours
Inspection time (average per batch)	1.5 hours
Waiting time (average per batch)	1.5 hours
Move time (average per batch)	1.5 hours
Units per batch	20 units

The manufacturing cycle efficiency (MCE) is

a. 72.7% c. 36.0%
b. 64.0% d. 76.0%

30. Using the information in No. 29, what is the throughput time?
The throughput time is

a. 12.5 hours c. 8.0 hours
b. 4.5 hours d. 9.5 hours

31. Data Corporation is a highly automated manufacturing firm. The vice president of finance has decided that traditional standards are inappropriate for performance measures in an automated environment. Labor is insignificant in terms of the total cost of production and tends to be fixed, material quality is considered more important than minimizing material cost, and customer satisfaction is the number one priority. As a result, production and delivery performance measures have been chosen to evaluate performance. The following information is considered typical of the time involved to complete and ship orders.

Waiting Time:

From order being placed to start of production	8.0 days
From start of production to completion	7.0 days
Inspection time	1.5 days
Processing time	3.0 days
Move time	2.5 days

The Delivery Cycle Time is

A. 22 days C. 11 days
B. 14 days D. 7 days

32. Alma Company is a chemical manufacturer that supplies industrial users. The company plans to introduce a new chemical solution and needs to develop a standard product cost for this new solution.

The new chemical solution is made by combining a chemical compound (nyclyn) and a solution (salex), boiling the mixture; adding a second compound (protet), and bottling the resulting solution in 20-liter containers. The initial mix, which is 20 liters in volume, consists of 24 kilograms of nyclyn and 19.2 liters of salex. A 20% reduction in volume occurs during the boiling process. The solution is then cooled slightly before 10 kilograms of protet are added; the addition of protet does not affect the total liquid volume.

The purchase prices of the raw materials used in the manufacture of this new chemical solution are as follows:

Nyclyn	P15.00 per kilogram
Salex	P21.00 per liter
Protet	P28.00 per kilogram

The total standard materials cost of 20 liters of the product is

a. P1,043.20 c. P1,304.00
b. P 834.56 d. P1,234.00

33. Information on Divine's direct material costs for May is as follows:

Actual quantity of direct materials purchased and used	30,000 lbs.
Actual cost of direct materials	P84,000
Unfavorable direct materials usage variance	P 3,000
Standard quantity of direct materials allowed for May production	29,000 lbs

For the month of May, Divine's direct materials price variance was:

a. P2,800 favorable c. P6,000 unfavorable
b. P2,800 unfavorable d. P6,000 favorable

34. William Furniture Company uses about 200,000 yards of a particular fabric each year. The fabric costs P2.50 per yard. The current policy is to order the fabric four times a year. Incremental ordering costs are about P200 per order, and incremental carrying costs are about P0.75 per yard, much of which represents the opportunity cost of the funds tied up in inventory.
How much total annual costs are associated with the current inventory policy?

a. P19,550 c. P38,300
b. P18,750 d. P62,500

35. The following direct labor information pertains to the manufacture of Part XW:

Number of hours required to make a part	2.5 DLH
Number of Direct workers	75
Number of total productive hours per week	3000
Weekly wages per worker	P1,000
Laborers' fringe benefits treated as direct labor costs	25% of wages

What is the standard direct labor cost per unit of Part XW?

a. P62.500 c. P41.670
b. P78.125 d. P84.125

36. Burma, Inc. analyzes manufacturing overhead in the production of its only one product, Odds. The following set of information applies to the month of April, 2004:

	Budgeted	Actual
Units produced	40,000	38,000
Variable manufacturing overhead	P4/DLH	P16,400
Fixed manufacturing overhead	P20/DLH	P88,000
Direct labor hours	6 minutes/unit	4,200 hours

What are the fixed overhead spending and volume variances for the month of April?

	a	b	c	d
Spending	P4,000 F	P8,000 U	P4,000 F	P8,000 U
Volume	P4,000 F	P4,000 U	P8,000 F	P8,000 U

37. Using the information in Number 36, what are the variable overhead spending and efficiency variances for the month of April?

	a	b	c	d
Spending	P400F	P400U	P1,200F	P1,200U
Efficiency	P1,600U	P1,600U	P 800U	P 800F

38. Tamaraw Company is negotiating to purchase equipment that would cost P200,000, with the expectation that P40,000 per year could be saved in after-tax cash costs if the equipment were acquired. The equipment's estimated useful life is 10 years, with no salvage value, and would be depreciated by the straight-line method. Tamaraw's minimum desired rate of return is 12 percent. Present value of an annuity of 1 at 12 percent for 10 periods is 5.65. Present value of 1 due in 10 periods at 12 percent is 0.322.

The average accrual accounting rate of return during the first year of asset's use is

a. 20.0 percent c. 10.0 percent
b. 10.5 percent d. 40.0 percent

39. Glenda Company expects to generate P10 million internally which could be available for financing part of its P12 million capital budget for this coming year. Glenda's management believes that a debt-equity ratio of 40 percent is best for the firm. How much should be paid in dividends if the target debt-equity ratio is to be maintained?

a. P2,800,000 c. P8,571,429
b. P1,428,571 d. P4,000,000

40. Panama Insurance Company's management is considering an advertising program that would require an initial expenditure of P165,500 and bring in additional sales over the next five years. The cost of advertising is immediately recognized as expense. The projected additional sales revenue in Year 1 is P75,000, with associated expenses of P25,000. The additional sales revenue and expenses from the advertising program are projected to increase by 10 percent each year. Panama Insurance Company's tax rate is 40 percent.
The present value of 1 at 10 percent, end of each period:

Periods	Presen value Factory
1	0.90909
2	0.82645
3	0.75131
4	0.68301
5	0.62092

The net present value of the advertising program would be

a. P37,064 c. P(37,064)
b. P29,136 d. P(29,136)

41. For P450,000, Roxas Corporation purchased a new machine with an estimated useful life of five years with no salvage value. The machine is expected to produce cash flow from operations, net of 40 percent income taxes, as follows:

First year	P160,000
Second year	140,000
Third year	180,000
Fourth year	120,000
Fifth year	100,000

Roxas will use the sum-of-the-years-digits' method to depreciate the new machine as follows:

First year	P150,000
Second year	120,000
Third year	90,000
Fourth year	60,000
Fifth year	30,000

The present value of 1 for 5 periods at 12 percent is 3.60478. The present values of 1 at 12 percent at end of each period are:

End of: Period 1 – 0.8928, Period 2 - 0.79719, Period 3 - 0.71178, Period 4 - 0.63552, Period 5 - 0.56743

Had Roxas used straight-line method of depreciation, what is the difference in net present value provided by the machine at a discount rate of 12 percent?

a. Increase of P9,750 c. Decrease of P24,376
b. Decrease of P9,750 d. Increase of P24,376

42. GMA Company has an opportunity to acquire a new machine to replace one of its present machines. The new machine would cost P90,000, have a 5-year life and no estimated salvage value. Variable operating costs would be P100,000 per year. The present machine has a book value of P50,000 and a remaining life of 5 years. Its disposal value now is P5,000, but it would be zero after 5 years. Variable operating costs would be P125,000 per year. Ignore income taxes. Considering the 5 years in total, what would be the difference in profit before income taxes by acquiring the new machine as opposed to retaining the present one?

a. P10,000 decrease c. P35,000 increase
b. P15,000 decrease d. P40,000 increase

43. The board of directors of Contemporary Company was unhappy with the current return on common equity. Though the return on sales (profit margin) was impressively good at 12.5 percent, the asset turnover was only 0.75. The present debt ratio is 0.40.

Atty. Tristan, the vice-president of corporate planning, presented a proposal as follows:

- Profit margin should be raised to 15 percent.
- The new capital structure will be revised by raising debt component.
- The asset turnover will be maintained at 0.75.

The proposed adjustment is estimated to raise return on equity by 50 percent.
What debt ratio did Atty. Tristan propose in order to raise the return on equity (ROE) to 150 percent of the present level?

a. 0.52 c. 0.68
b. 0.61 d. 0.72

44. Spec, Inc.'s stock is expected to generate a dividend and terminal value one year from now of P57.00. The stock has a beta of 1.3, the risk-free interest rate is 6 percent, and the expected return market return is 11 percent. What should the equilibrium price of Spec's stock in the market now?

a. P50.67 C. P53.77
b. P51.35 D. P43.84

45. Tiger Company's stock is currently selling for P60 a share. The firm is expected to earn P5.40 per share and to pay a year-end dividend of P3.60.
If investors require a 9 percent return, what rate of growth must be expected for Tiger?

a. Zero growth c. 40.0 percent
b. 3.0 percent d. 50.0 percent

46. Galvez Company expects next year's after-tax income to be P7,500,000. The firm's debt ratio is currently 40 percent. Galvez has P6,000,000 of profitable investment opportunities, and it wishes

to maintain its existing debt ratio. According to the residual dividend policy, what is the expected dividend payout ratio next year?

a. 52.0 percent c. 48.0 percent
b. 75.0 percent d. 25.0 percent

47. The Maru Company's bonds have 5 years remaining to maturity. Interest is paid annually; the bonds have a P1,000 face value; and the coupon interest rate is 9 percent. **BONUS**

What is the estimated yield to maturity of the bonds at their current market price of P850?

a. 10.64 percent c. 11.76 percent
b. 11.00 percent d. 10.00 percent

48. Assume you are given the following relationships for the Bryan Company:

Sales/total assets	1.5X
Return on assets (ROA)	3%
Return on equity (ROE)	5%

The Bryan Company's debt ratio is

a. 40% c. 35%
b. 60% d. 65%

49. Mirriam, Inc. expects net income of P800,000 for the next fiscal year. Its targeted and current capital structure is 40% debt and 60% common equity. The director of capital budgeting has determined that the optimal capital spending for next year is P1,200,000. If Mirriam follows a strict residual dividend policy, what is the expected dividend payout ratio for next year?

a. 80.0 percent c. 40.0 percent
b. 66.7 percent d. 10.0 percent

50. Villacorte, Inc. is considering changing its credit terms from 2/15, net 30, to 3/10, net 30. in order to speed collections. At present, 40 percent of Villacorte's customers take the 2 percent discount. Under the new terms, discount customers are expected to rise to 50 percent. Regardless of the credit terms, half of the customers who do not take the discount are expected to pay on time, whereas the remainder will pay 10 days late. The change does not involve a relaxation of credit standards; therefore bad debt losses are not expected to rise above their present 2 percent level. However, the more generous cash discount terms are expected to increase sales from P2 million to P2.6 million per year. Villacorte's variable cost ratio is 75 percent, the interest rate on funds invested in accounts receivable is 9 percent, and the firm's income tax rate is 40 percent.

The incremental carrying cost on receivable is

a. P843.75 c. P8,889
b. P643.75 d. P6,667

51. Elcinore Company is considering a switch to level production. Cost efficiencies will occur under level production and after tax cost would decline by P70,000 but inventory would increase from P1,000,000 to P1,800,000. Elcinore would have to finance the extra inventory at a cost of 10.5 percent.

How low would interest rate need to fall before level production would be feasible?

a. 7.00 percent c. 8.75 percent
b. 5.83 percent d. 10.00 percent

52. A learning curve of 80% assumes that production unit costs are reduced by 20% for each doubling of output. What is the cost of the sixteenth unit produced as an approximate percent of the first unit produced?

a. 30 percent c. 51 percent
b. 41 percent d. 64 percent

53. Each stockout of a product sold by Arroyo Co. costs P1,750 per occurrence. The company's carrying cost per unit of inventory is P5 per year, and the company orders 1,500 units of product 20 times a year at a cost of P100 per order. The probability of a stockout at various levels of safety stock are:

Units of Safety Stock	Probability of Stockout
0	0.50
100	0.30
200	0.14
300	0.05
400	0.01

The optimal safety stock level for the company based on the units of safety stock level above is

a. 200 units c. 300 units
b. 100 units d. 400 units

54. Pidol, Inc. is considering a three-phase research project. The time estimates for completion of Phase 2 of the project are:

Pessimistic	20 days
Most likely	16 days
Optimistic	10 weeks

Using the program evaluation and review technique (PERT), the expected time for completion of Phase 2 should be

a. 15.67 days c. 16 days
b. 15.33 days d. 20 days

55. The manager of Mush Company has developed the following probability distribution of dairy sales of a highly perishable product. The company restocks the product each morning:

X (Units Sold	P (Sales =X)
200	0.25
240	0.40
255	0.15
260	0.10
275	0.05
300	0.05

If the company desires an 80% service level in satisfying sales demand, what should the initial balance be for each day?

a. 225 c. 255
b. 245 d. 184

Questions 56 through 59 are based on the following information:

Timex Sporting Goods Company, a wholesale supply company, engages independent sales agents to market the company's products throughout the country. These agents currently receive a commission of 20 percent of sales, but they are demanding an increase to 25 percent of sales made during the year ending December 31, 2005. The controller already prepared the 2005 budget before learning of the agents' demand for an increase in commission. The budgeted 2005 income statement is shown below. Assume that cost of goods sold is 100 percent variable cost.

Sales		P10,000,000
Cost of goods sold		6,000,000
Gross margin		P 4,000,000
Selling and administrative expenses		
Commissions	P2,000,000	
All other expenses (fixed)	100,000	2,100,000

Income before taxes	P 1,900,000
Income tax (30%)	570,000
Net income	P 1,330,000

Timex's management is considering the possibility of employing full-time sales personnel. Three individuals would be required, at an estimated annual salary of P30,000 each, plus commissions of 5 percent of sales. In addition, a sales manager would be employed at a fixed annual salary of P160,000. All other fixed costs, as well as the variable cost percentages, would remain the same as the estimates in the 2005 budgeted income statement.

56. How much is the estimated break-even point in peso sales for the year ending December 31, 2005, based on the budgeted income statement prepared by the controller?
a. P500,000 c. P250,000
b. P400,000 d. P125,000

57. How much is the estimated break-even point in peso sales for the year ending December 31, 2005, if the company employs its own sales personnel?
a. P542,857 c. P875,000
b. P742,857 d. P1,000,000

58. How much volume in peso sales would be required for the year ending December 31, 2005, to yield the same net income as projected in the budgeted income statement, if Timex continues to use the independent sales agents and agrees to their demand for a 25 percent sales commission?
a. P8,000,000 c. P10,000,000
b. P9,533,333 d. P13,333,333

59. How much is the estimated volume in peso sales that would generate an identical net income for the year ending December 31, 2005, regardless of whether Timex employs its own sales personnel or continues to use the independent sales agents and pays them a 25 percent commission?
a. P1,000,000 c. P1,500,000
b. P1,250,000 d. P1,800,000

Questions 60 through 65 are based on the Red Corporation, a retailer whose sales are all made on credit. Sales are billed twice monthly, on the 10th of the month for the last half of the prior month's sales, and on the 20th of the month for the first half of the current month's sales. The terms of all sales are 2/10, net/30. Based upon past experience, the collection of accounts receivable is as follows:

Within the discount period	80%
On the 30th day	18%
Uncollectible	2%

Red's average markup on its products is 20% of the sales price. All sales and purchases occur uniformly throughout the month.
The sales value of shipments for May and the forecasts for the next four months follow:

May (actual)	P500,000
June	600,000
July	700,000
August	700,000
September	400,000

Red purchases merchandise for resale to meet the current month's sales demand and to maintain a desired monthly ending inventory of 25% of the next month's sales. All purchases are on credit with terms of net/30. Red pays for 50% of a month's purchases in the month of purchase and 50% in the month following the purchase.

60. How much cash can Red Corporation plan to collect from accounts receivable collections during July?
a. P574,000 c. P619,000
b. P662,600 d. P608,600

61. How much cash can Red plan to collect in September from sales made in August?
a. P337,400 c. P400,400
b. P343,000 d. P280,000

62. The budgeted peso value of Red's inventory on August 31 will be
a. P110,000 c. P112,000
b. P80,000 d. P100,000

63. How much merchandise should Red plan to purchase during June?
a. P520,000 c. P500,000
b. P460,000 d. P580,000

64. The amount Red should budget in August for the payment of merchandise is
a. P560,000 c. P600,000
b. P530,000 d. P667,000

65. Red has found that most retailers in the area use markup percentages based upon cost rather than sales. Assuming MS equals the markup percentage based upon sales price and MC equals the markup percentage based upon cost, what formula would Red use to convert its markup on sales to one based upon cost?
a. MC = MS/(1 + MS) c. MC = (1 – MS)/MS
b. MC = MS/(1 - MS) d. MC = (1 + MS)/MS

End of Examination
Thank you for participating in the 2011 National Mock CPA Board Examinations!