Multiple Choice (45%)

The following financial statements apply to numbers 1-3:

Baker Corporation Balance Sheet – December 31, N			
Cash and marketable securities	$ 50	Accounts payable	$ 250
Accounts receivable	200	Accruals	250
Inventory	250	Notes payable	500
Total current assets	$ 500	Total current liabilities	$1,000
Net fixed assets	1,500	Long-term debt	250
		Common stock	400
		Retained earnings	350
Total assets	$2,000	Total liabilities and equity	$2,000

1. What is Baker Corporation's current ratio as of December 31, N?
   a. 0.35
   b. 0.65
   c. 0.50
   d. 0.25

2. If Baker uses $50 of cash to pay off $50 of its accounts payable, what is its new current ratio after this action?
   a. 0.47
   b. 0.44
   c. 0.54
   d. 0.62

3. If Baker uses its $50 cash balance to pay off $50 of its long-term debt, what will its new current ratio be?
   a. 0.35
   b. 0.45
   c. 0.50
   d. 0.55

The following information applies to numbers 4 - 6:

The director of capital budgeting for Giant Inc. has identified two mutually exclusive projects, L and S, with the following expected net cash flows:

Expected Net Cash Flows		
Year	Project L	Project S
0	($100)	($100)
1	10	70
2	60	50
3	80	20

Both projects have a cost of capital of 10 percent.

4. What is the payback period for Project S?
   a. 1.6 years
   b. 1.8 years
   c. 2.1 years
   d. 2.5 years

5. What is Project L's NPV?
   a. $50.00
   b. $34.25
   c. $22.64
   d. $18.79

6. What is Project L's IRR?
   a. 17.8%
   b. 18.1%
   c. 19.7%
   d. 21.4%

The following information applies to numbers 7-10

E. T. Toys, Inc. produces toys for national distribution. The management has recently established a standard cost system to control costs. The standards on a particular toy are:

Materials: 12 pieces per toy at $0.56 per piece.
Labor: 2 hours per toy at $3.75 per hour.

During the month of February, N, the company produced 1,000 toys. Production data for the month are as follows:

- Material: 17,500 pieces were purchased for the use in production at a total cost of $8,925, of which 3,500 pieces were still in inventory at the end of the month.
- Labor: 2,500 hours were worked at a cost of $10,500.

7. What is the material purchase price variance?
   a. $770 F
   b. $795 U
   c. $840 U
   d. $875 F

8. What is the material quantity (usage) variance?
   a. $1,100 F
   b. $1,120 U
   c. $1,170 F
   d. $1,220 U

9. What is the labor rate variance?
   a. $1,125 U

b. $1,175 U
c. $1,225 F
d. $1,275 U

10. What is the labor efficiency variance?
a. $875 F
b. $1,220 F
c. $1,225 F
d. $1,875 U

The following information applies for numbers 11 and 12.
Boleyn Company is a small company which produces a single product and has the following cost structure:

Number of units produced each year	6,000
Variable costs per unit	
Direct materials	$ 2
Direct labor	4
Variable manufacturing overhead	1
Variable selling and administrative expenses	3
Fixed costs per year	
Fixed manufacturing overhead	30,000
Fixed selling and administrative expenses	10,000

11. The unit product cost under absorption costing is:
a. $7
b. $12
c. $16
d. $21

12. The unit product cost under variable costing is:
a. $7
b. $12
c. $16
d. $21

13. Scorpio Company's activity for the first three months of 2008 are as follows:

	Machine Hours	Electrical Cost
January	2,100	$2,400
February	2,600	$2,900
March	2,900	$3,200

Using the high-low method, how much is the cost per machine hour?
a. $1.00
b. $1.50

c. $1.13
d. $0.89

14. Sonoma Winery has fixed costs of $10,000 per year. Its warehouse sells wine with variable costs of 80% of its unit selling price. How much in sales does Sonoma need to break even per year?
    a. $8,000
    b. $2,000
    c. $12,500
    d. $50,000

15. Swashbuckler, Inc. produces buckets. The selling price is $20 per unit and the variable costs are $8 per bucket. Fixed costs per month are $4,800. If Swashbuckler sells 10 more units beyond breakeven, how much does profit increase as a result?
    a. $120
    b. $400
    c. $600
    d. $12,000

16. Manhattan Cookery reported actual sales of $2,000,000, and fixed costs of $400,000. The contribution margin ratio is 25%. Compute the margin of safety ratio.
    a. 20%
    b. 30%
    c. 40%
    d. 50%

17. Techno Company's net accounts receivable were $250,000 as of December 31, N, and $300,000 as of December 31, N+1. Net cash sales for N+1 were $100,000. The accounts receivable turnover for N+1 was 5.0. What were the total net sales for N+1?
    a. $1,275,000
    b. $1,375,000
    c. $1,475,000
    d. $1,575,000

The following information applies to numbers 18 and 19
Luster Corporation's common stock account for the year 2016 showed:
Common stock, $10 par value $45,000

The following data are provided relative to 2016:

	2016
Dividends	$2,250
Market price per share	$20
Earnings per share	$2.13

18. What is the dividend yield?
    a. 0.025
    b. 0.036
    c. 0.045
    d. 0.015

19. What is the dividend payout?
    a. 0.22
    b. 0.23
    c. 0.32
    d. 0.33

20. Black Company desires to finance its $300,000 inventory. Funds are required for four months. Under consideration is a warehouse receipt loan at an annual interest rate of 17 percent, with an 85 percent advance against the inventory's value. The warehousing cost is $5,000 for the four-month period.

    What is the financing cost?
    a. $18,280
    b. $19,450
    c. $20,115
    d. $23,230

The following information applies for numbers 21 and 22.
Goodies Inc. presented the following information for the year N:

Sales	$30,000,000
External failure costs	900,000
Internal failure costs	1,800,000
Prevention costs	400,000
Appraisal costs	600,000

21. What is the total quality costs as a percentage of sales?
    a. 4.3%
    b. 7.6%
    c. 9.9%
    d. 12.33%

22. If quality costs were reduced to 2.5% of sales, determine the increase in profit that would result.
    a. $2,950,000
    b. $3,140,000
    c. $3,300,000
    d. $3,700,000

23. A firm has total interest charges of $20,000 per year, sales of $2 million, a tax rate of 40 percent and a profit margin of 6 percent. What is the firm's times-interest-earned ratio?
   a. 10
   b. 11
   c. 12
   d. 13

24. A financial analyst with Mineral Inc. calculated the company's degree of financial leverage as1.5. If net income before interest increases by 5%, earnings to shareholders will increase by

   a. 1.50%.
   b. 3.33%.
   c. 5.00%.
   d. 7.50%.

25. Direct materials cost was $57,000, direct labor cost was $43,000, and manufacturing overhead was $71,000. Selling expense was $15,000 and administrative expense was $32,000. Which of the following is correct?

	Prime Cost	Conversion Cost
A.	$ 57,000	$114,000
B.	$100,000	$71,000
C.	$100,000	$114,000
D.	$ 57,000	$129,000

26. Data regarding RAFITI Co. budget are shown below:

Planned sales	4,000 units
Material cost	$ 2.5 per pound
Direct labor	3 hours per unit
Direct labor rate	$7 per hour
Finished goods beginning inventory	900 units
Finished goods ending inventory	600 units
Direct materials beginning inventory	4,300 units
Direct materials ending inventory	4,500 units
Materials used per unit	6 pounds

RAFITI Co. production budget will show total units to be produced of:
   a. 3,700
   b. 4,000
   c. 4,300
   d. 4,600

27. A review of the inventories of Cedar Grove Company shows the following cost data for entertainment centers.

Invoice price	$400.00 per unit

Freight and insurance on shipment		20.00 per unit
Insurance on inventory		15.00 per unit
Unloading		140.00 per order
Cost of placing orders		10.00 per order
Cost of capital	25%	

What are the total carrying costs of inventory for an entertainment center?

a. $105.
b. $115.
c. $120.
d. $420.

28. Corn Crunchers has three product lines. Its only unprofitable line is Corn Nuts, the results of which appear below for 2016:

Sales	$350,000
Variable expenses	230,000
Fixed expenses	150,000
Net loss	$(30,000)

If this product line is eliminated, 30% of the fixed expenses can be eliminated. How much are the relevant costs in the decision to eliminate this product line?

a. $45,000
b. $380,000
c. $335,000
d. $275,000

29. Brooke Company's management team is preparing a cash budget for the coming quarter. The following budgeted information is under review.

	January	February	March
Revenue	$700,000	$800,000	$500,000
Inventory purchases	350,000	425,000	225,000
Other expenses	150,000	175,000	175,000

The company expects to collect 40% of its monthly sales in the month of sale and 60% in the following month. 50% of inventory purchases are paid in the month of purchase, and 50% in the following month. Payments for all other expenses are made in the month incurred.

Brooke forecasts the following account balances at the beginning of the quarter.

Cash	$200,000
Accounts receivable	300,000
Accounts payable (Inventory)	400,000

Given the above information, the projected ending cash balance for February will be

a. $712,500.
b. $500,000.
c. $232,500.
d. $120,000.

30. At January 1, 2016, Barry, Inc. has beginning inventory of 4,000 widgets. Barry estimates it will sell 35,000 units during the first quarter of 2016 with a 10% increase in sales each quarter. Barry's policy is to maintain an ending inventory equal to 25% of the next quarter's sales. Each widget costs $1 and is sold for $1.50. How much is budgeted sales revenue for the third quarter of 2016?

a. $57,525
b. $63,000
c. $63,525
d. $42,350

QUESTIONS (55 %)

Question 1 (10%):

Fayrouz Corporation provides the following selected financial statements:

Selected Income Statement Items, Year ٢٠١٦		
Cash Sales	$115,000	
Credit Sales	$450,000	
Total Sales	$565,000	
Cost of goods sold	$312,000	
Selected Balance Sheet Accounts		
	31/12/٢٠١٦	**31/12/٢٠١٥**
Accounts receivable	$18,000	$16,000
Inventory	$ 8,000	$ 5,000
Accounts payable	$ 7,000	$ 5,000

Required:

1. Calculate the average production cycle.
2. Calculate the average collection cycle.
3. Calculate the average payment cycle.
4. Calculate the cash conversion cycle.

Question 2 (10%):

Sally has been studying the government bond market and has made the following observations:

- When the economy is booming, the long-term bond return is 2%.
- When the economy is in a steady period, the return is 5%.
- When the economy is a in recession, the return is 10%.

Sally believes that next year there is a 25% chance of an economic boom, a 55% chance of a steady period, and a 20% chance of a recession (25% + 55% + 20% = 100% or 1). She is trying to determine the expected return for next year on government bonds and also wants to know what kind of variance she can expect for the coming year.

Required:

Find the expected risk and return for the long-term government bond for next year.

Question 3 (20%):

Mina Company manufactures and sells a product that has seasonal variations in demand, with peak sales coming in the third quarter. The following information concerns operations for Year 2 and for the first two quarters of Year 3:

a. The company's single product sells for $8 per unit. Budgeted sales in units for the next six quarters are as follows:

	Year 2				Year 3	
	Quarter 1	**Quarter** 2	**Quarter** 3	**Quarter** 4	**Quarter** 1	**Quarter** 2
Budgeted sales in units	40,000	60,000	100,000	50,000	70,000	80,000

b. Sales are collected in the following pattern:75% in the quarter the sales are made, and the remaining 25% in the following quarter. On January 1, Year 2, the company's balance sheet showed $65,000 in accounts receivable, all of which will be collected in the first quarter of the same year. Bad debts are negligible and can be ignored.
c. The company desires an ending inventory of finished units on hand at the end of each quarter equals to 30% of the budgeted sales for the next quarter. On December 31, Year 1, the company had 12,000 units on hand.
d. Five pounds of raw materials are required to complete one unit of product. The company requires an ending inventory of raw materials on hand at the end of each quarter equal to 10% of the production needs of the following quarter. On December 31, Year 1, the company had 23,000 pounds of raw materials on hand.
e. The raw material costs $0.80 per pound. Purchases of raw material are paid for in the following pattern: 60% paid in the quarter the purchases are made, and the remaining 40% paid in the following quarter. On January 1, Year 2, the company's balance sheet showed $81,500 in accounts payable for raw material purchases, all of which will be paid for in the first quarter of the year

Required:

Prepare the following budgets and schedules for the year, showing both quarterly and total figures:

1. A sales budget and a schedule of expected cash collections.
2. A production budget.
3. A direct materials purchases budget and a schedule of expected cash payments for material purchases.

Question 4 (15%) :

Family Supermarkets (FS) has decided to increase the size of its Memphis store. It wants information about the profitability of individual product lines: soft drinks, fresh produce, and packaged food. FS provides the following data for 2016 for each product line:

	Soft Drinks	Fresh Produce	Packaged Food
Revenues	$317,400	$840,240	$483,960
Cost of goods sold	$240,000	$600,000	$360,000
Cost of bottles returned	$ 4,800	$ 0	$ 0
Number of purchase orders placed	144	336	144
Number of deliveries received	120	876	264
Hours of shelf-stocking time	216	2,160	1,080
Items sold	50,400	441,600	122,400

FS also provides the following information for 2016:

Activity (1)	Description of Activity (2)	Total Support Costs (3)	Cost-Allocation Base (4)
1- Bottle returns	Returning empty bottles to store	$ 4,800	Direct tracing to soft-drink line
2- Ordering	Placing orders for purchases	$ 62,400	624 purchase orders
3- Delivery	Physical delivery and receipt of merchandise	$100,800	1,260 deliveries
4- Shelf-stocking	Stocking of merchandise on store shelves and ongoing restocking	$ 69,120	3,456 hours of shelf-stocking time
5- Customer support	Assistance provided to customers including checkout and bagging	$122,880	614,400 items sold
Total		$360,000	

Required:

1. FS currently allocates store support costs (all costs other than cost of goods sold) to product lines on the basis of cost of goods sold of each product line. Calculate the operating income and operating income as a percentage of revenues for each product line.
2. If FS allocates store support costs (all costs other than cost of goods sold) to product lines using an ABC system, calculate the operating income and operating income as a percentage of revenues for each product line.
