Question 1

The Doley Company has planned the following sales for the next three months:

	January	February	March
Budgeted Sales	$40,000	$50,000	$70,000

Sales are made 20% for cash and 80% on account. From experience, the company has learned that a month's sales on account are collected according to the following pattern:

Month of sale	60%
First month following sale	30%
Second month following sale	8%
Uncollectible	2%

The company requires a minimum cash balance of $5,000 to start a month. The beginning cash balance in March is budgeted to be $6,000.

Required:
a) Compute the budgeted cash receipts for March.

b) The following additional information has been provided for March:

Inventory purchases (all paid in March)	$28,000
Operating Expenses (all paid in March)	$40,000
Depreciation expense for March	$5,000
Dividends paid in March	$4,000

Prepare a cash budget in good form for the month of March, using this information and the budgeted cash receipts you computed for part a) above. The company can borrow in any dollar amount and will not pay interest until April.

Question 2

On March 31, Streuling Enterprises, a merchandising firm, had inventory of 38,000 units, and it had accounts receivable totalling $85,000, Sales, in units, have been budgeted as follows for the next four months:

April	60,000
May	75,000
June	90,000
July	81,000

Streuling's board of directors has established a policy to commence in April that the inventory at the end of each month should contain 20% of the units required for the following month's budgeted sales.

The selling price is $2 per unit. One-third of sales are paid for by customers in the month of the sale; the balance is collected in the following month.

Required:

a) Prepare a merchandise purchases budget showing how many units should be purchased for each of the months April, May and June.

b) Prepare a schedule of expected cash collections for each of the months April, May and June.

Question 3

Dawson Toys, Ltd produces a toy called the Maze. The company has recently established a standard cost system to help control costs and has established the following standards for the Maze toy:

Direct materials: 6 microns per toy at $0.50 per micron
Direct labour: 1.3 hours per toy at $8 per hour

During July, the company produced 3,000 Maze toys. Production data for the month on the toy follow:

Direct materials:
25,000 microns were used at a cost of $0.48 per micron

Direct labour:
4,000 direct labour hours were worked at a cost of $36,000

Required:

a) Find the materials price and quantity variances.

b) Find the labour rate and efficiency variances.

Question 4

Lido Company's standard and actual costs per unit for the most recent period, during which 400 units were actually produced, are given below:

	Standard	Actual
Materials:		
Standard: 2 metres at $1.50 per m.	$ 3.00	
Actual: 2.1 metres. at $1.60 per m.		$ 3.36
Direct labour:		
Standard: 1.5 hrs. at $6.00 per hr.	9.00	
Actual: 1.4 hrs. at $6.50 per hr.		9.10
Variable overhead:		
Standard: 1.5 hrs. at $3.40 per hr.	5.10	
Actual: 1.4 hrs. at $3.10 per hr.		4.34
Total unit cost	$17.10	$16.80

Required:
From the above information, compute the following variances. Show whether the variance is favourable (F) or unfavourable (U):
a) Materials price variance
b) Materials quantity variance
c) Direct labour rate variance
d) Direct labour efficiency variance

Question 5

Sucher Company uses a standard cost system in which manufacturing overhead costs are applied to units of product on the basis of machine hours. The company's condensed flexible budget for manufacturing overhead is given below:

	Per Machine Hour	Machine Hours 20,000	25,000	30,000
Variable overhead costs	$3	$ 60,000	$ 75,000	$ 90,000
Fixed overhead costs		300,000	300,000	300,000
Total overhead costs		$360,000	$375,000	$390,000

The denominator level of activity is 30,000 machine hours. Standards call for 2.5 machine hours per unit of output. Actual activity and manufacturing overhead costs for the year are given below:

Units produced	12,800 units
Machine hours used	31,600 machine hours
Overhead costs incurred:	
Variable costs	$ 96,000
Fixed costs	$297,000

Required:
a) What are the standard hours allowed for the output?
b) What was the variable overhead spending variance?
c) What was the variable overhead efficiency variance?
d) What was the fixed overhead budget variance?
e) What was the fixed overhead volume variance?

Question 6

Beaker Company
Balance Sheet

	Beginning Balance	Ending Balance
Assets:		
Cash	50,000	70,000
Accounts Receivable	20,000	25,000
Inventory	30,000	35,000
Plant and Equip.	120,000	110,000
Investment in Cedar Company	80,000	100,000
Land (undeveloped)	170,000	170,000
Total Assets	470,000	510,000
Liabilities and equity:		
Accounts payable	70,000	90,000
Long-term debt	250,000	250,000
Owner's equity	150,000	170,000
Total liabilities and equity	470,000	510,000

Beaker Company
Income Statement

Sales		414,000
Operating Expenses		351,900
Net operating income		62,100
Less interest and taxes:		
Interest	30,000	
Taxes	10,000	40,000
Operating Income		22,100

The company paid dividends of $4,100 last year. The "Investment in Cedar Company" on the balance sheet represents an investment in the stock of another company.

Required:

a) Compute the company's margin, turnover, and return on investment for last year.
b) The Board of Directors of Beaker Company have set a minimum required return of 15%. What was the company's residual income last year?

Question 7

Charter Sports Equipment manufactures round, rectangular, and octagonal trampolines. Data on sales and expenses for the past month follow:

		Trampoline		
	Total	Round	Rectangular	Octagonal
Sales	1,000,000	140,000	500,000	360,000
Less: Variable expenses	410,000	60,000	200,000	150,000
Contribution margin	590,000	80,000	300,000	210,000
Less: fixed expenses				
Advertising - traceable	216,000	41,000	110,000	65,000
Depreciation of special equipment	95,000	20,000	40,000	35,000
Line supervisors' salaries	19,000	6,000	7,000	6,000
General factory overhead	200,000	28,000	100,000	72,000
Total fixed expenses	530,000	95,000	257,000	178,000
Operating Income (loss)	60,000	(15,000)	43,000	32,000

Management is concerned about the continued losses shown by the round trampolines and wants a recommendation as to whether or not the line should be discontinued. The special equipment used to produce the trampolines has no resale value. If the round trampoline model is dropped, the two line supervisors assigned to the model would be discharged.

Required:

1. Should production and sale of the round trampolines be discontinued? You may assume that the company has no other use for the capacity now being used to produce the round trampolines. Show computations to support your answer

2. Recast the above data in a format that would be more usable to management in assessing the long-run profitability of the various product lines.

Question 8

Amherst Jewellers is considering a special order for 20 handcrafted gold bracelets to be given as gifts to members of a wedding party. The normal selling price of a gold bracelet is $189.95 and its unit product cost is $149 as shown below:

Direct materials	$ 84.00
Direct labour	45.00
Manufacturing overhead	20.00
Unit product cost	$ 149.00

Most of the manufacturing overhead is fixed and unaffected by variations in how much jewellery is produced in any given period. However, $4.00 of the overhead is variable with respect to the number of bracelets produced. The customer who is interested in the special bracelet order would like special filigree applied to the bracelets. This filigree would require additional materials costing $2/bracelet and would also require acquisition of a special tool costing $250 that would have no other use once the special order is completed. This order would have no effect on the company's regular sales and the order could be fulfilled using the company's existing capacity without affecting any other order.

Required:
What effect would accepting this order have on the company's net operating income if a special price of $169.95 per bracelet is offered for this order? Should the special order be accepted at this price?

Question 9

Kolbec Company normally produces and sells 30,000 units of RG-6 each month. RG-6 is a small electrical relay used as a component part in the automotive industry. The selling price is $22 per unit, variable costs are $14 per unit, fixed manufacturing overhead costs total $150,000 per month, and fixed selling costs total $30,000 per month.

Employment-contract strikes in the companies that purchase the bulk of the RG-6 units have caused Kolbec Company's sales to temporarily drop to only 8,000 units per month. Kolbec Company estimates that the strikes will last for two months, after which time sales of RG-6 should return to normal. Due to the current low level of sales, Kolbec Company is thinking about closing down its own plant during the strike, which would reduce its fixed manufacturing overhead costs by $45,000 per month and its fixed selling costs by 10%. Start-up costs at the end of the shutdown period would total $8,000. Since Kolbec Company uses just-in-time (JIT) production methods, no inventories are on hand.

Required:

1. Assuming that the strikes continue for two months, would you recommend that Kolbec Company close its own plant? Explain. Show computations in good form.
2. At what level of sales (in units) for the two-month period should Kolbec Company be indifferent between closing the plant or keeping it open? Show computations. (Hint: This is a type of break-even analysis, except that the fixed cost portion of your break-even computation should include only those fixed costs that are relevant [i.e., avoidable] over the two-month period.)

Question 10

JenCo has $350,000 to invest. The company is trying to decide between two alternative uses of the funds. The alternatives are:

	Project A	Project B
Cost of equipment required	$350,000	
Working capital investment required		$350,000
Annual cash inflows	87,500	42,000
Salvage value of equipment in four years	6,000	
Life of project	4 years	4 years

The working capital needed for project B will be released at the end of four years for investment elsewhere. JenCo's discount rate is 15%

a) Compute the NPV for both projects. Round your answers to the nearest dollar.
b) Which project will be accepted?

Question 11

A Bakery would like to buy a new machine for putting icing and other toppings on pastries. These are now put on by hand. The machine that the bakery is considering costs $90,000 new. It would last the bakery for eight years but would require a $7,500 overhaul at the end of the fifth year. After eight years, the machine could be sold for $6,000.

The bakery estimates that it will cost $14,000 per year to operate the new machine. The present manual method of putting toppings on the pastries costs $35,000 per year. In addition to reducing operating costs, the new machine will allow the bakery to increase its production of pastries by 5,000 packages per year. The bakery realizes a contribution margin of $0.60 per package. The bakery requires 16% return on all investments.

a) What are the net annual cash inflows that will be provided by the new machine?
b) Compute the new machine's net present value.

Question 12

Mylar 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 – the coming year – and for the first two quarters of year 3

a. The company's single product sells for $8/unit. Budgeted sales for the next 4 quarters (year 2) are as follows:
   Q1 – 40,000 units
   Q2 – 60,000 units
   Q3 – 100,000 units
   Q4 – 50,000 units
   Q1 (year 3) – 70,000

b. Sales are collected in the following patterns: 75% in the quarter the sales are made, and the remaining 25% in the following quarter. On January 1st of 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 year. There are no bad debts.

c. The company desires an ending inventory of finished units on hand at the end of each quarter equal to 30% of the budgeted sales for the next quarter. This requirement was met in December 31, year 1, in that the company had 12,000 units on hand to start the New Year.

d. Five kilograms of raw materials are required to complete one unit of product. The company requires an ending inventory or raw materials on hand at the end of each quarter equal to 10% of the production needs of the following quarter. This requirement was met on December 31, year 1, in that the company had 23,000KG of raw materials on hand to start the New Year. Required production in Q1 of next year (year 3) is 73,000.

e. The raw material costs $0.80 per KG. Purchases of raw materials 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 materials 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 materials purchases