Budgeting

Practice Assessment: Questions

1. Match the data in the first column with the appropriate source in the second column.

Inflation rates	Trade journal
Marketing campaigns being carried out by competitors	The Bank of England bulletins
Effect of climate change in different areas	The internet
Business and economic trends	HM Revenue & Customs website
	Market research consultant
	National statistics

2. Who would you contact in each of the following situations? Match the data in the first column with the appropriate source in the second column.

You need information on the current sales demand levels	Purchasing department
You want to explain a labour rate variance	Budget committee
You want to explain a materials rate variance	Human Resources department
You are investigating the variable overheads variance	Production manager
	Sales department
	Budget committee

3. Select from the list below, an appropriate accounting treatment for each of the following costs.

Cost	Accounting treatment
Raw material usage	
Raw material wastage	
Purchase of production machines	
Hire of production machines	
Research on customers needs and demands	
Production staff wages	

Pick list:
Allocate to marketing overheads
Capitalise and depreciate over useful life
Direct cost
Charge to production in a machine hour overhead rate
Charge to production in a labour hour overhead rate
Activity based charge to products

4. Complete the following production forecast for product TAM. Do not show any decimals, round to the nearest whole number of units.

The closing inventory should be 24% of forecast sales volume for the following week. 3% of all production fails quality control checks and is rejected.

Production budget in units	Week 1	Week 2	Week 3	Week 4	Week 5
Opening inventory	1,830				
Closing inventory					
Sales	12,000	16,050	14,600	15,200	15,500
Saleable production					
Rejected production					
Total manufactured units					

5. 3,000 items of a product are to be manufactured in June and each product needs 3.8kg of raw material. 5% of raw material is wasted during manufacture. There is 1,450kg of opening inventory of raw materials and the closing inventory will be 980kg.

It takes 25mins to produce each product and the company has 5 staff each working 200 basic hours and any additional production will be delivered using overtime hours.

How much material should be purchased and how many overtime hours will be needed to complete the production?

6. Use the information and the tables provided below to set up the operating budget for Paddy Limited.

Production budget	Units
Opening inventory of finished goods	2,000
Production	9,000
Sub-total	11,000
Sales	10,500
Closing inventory of finished goods	500

Materials	Kg	£
Opening inventory	1,250	1,500
Purchases	14,000	15,400
Sub-total	15,250	16,900
Used in production		
Closing inventory		

Materials:
Each unit of product requires 1.5kg of material
Closing inventory will be valued at the budgeted purchase price

Labour	Hours	£
Basic time @ £3.60 per hour		
Overtime		
Total		

Labour:
Each item takes 25 minutes to make and there are 18 employees who work 200 hrs each in the period. Any more required hrs Will be overtime hours paid at time and half.

Overhead	Hours	£
Variable @ £3.20 per hour		
Fixed		
Total		

Overheads:
Variable overheads are recovered on total labour hours
Fixed overheads cost £3,355

*Closing inventory of finished goods should be valued at the budgeted cost of production per unit.

Operating budget	Units	£ per unit	£
Sales revenue		8.62	
Cost of goods sold:			£
Opening inventory of finished goods			9,200
Cost of production:		£	
Materials			
Labour			
Overheads			
*Closing inventory of finished goods			
Cost of goods sold			
Gross profit/(loss)			
Overheads:		£	
Marketing		11,450	
Administration		6,580	
Operating profit/(loss)			

7. You have prepared the sales draft budget for the coming year for product Bee:

Draft sales budget	This year's actual	Next year's budget
Sales volume	205,000 units	234,000 units
Selling price	£14.50	£15.25
Sales revenue	£2,972,500	£3,568,500

Notes:
The sales volume has been forecast by the sales manager
Product Bee was introduced three years ago and has been becoming more popular in the market and has had a steady growth in sales.
The sales manager has proposed an increase in the unit selling price and strongly feels that with a good marketing campaign the budgeted sales level will continue to increase in line with the budget.

Write an email to the budget committee, in three sections:
i. Submitting the budget for approval and explaining the key assumptions
ii. Describing the major risks attached to the marketing campaign
iii. Recommending 4 performance indicators to monitor the success of the organisations strategy.

8. Calculate the sales budget and the cost budgets for July.

	Budgets for the year	Budgets for July
Units sold	78,000	7,000
Units produced	80,400	6,700
	£	£
Sales	1,638,000	
Costs:		
Materials used	663,300	
Labour	185,850	
Variable production overhead	118,188	
Fixed overhead	48,600	

Each unit is made from 2.5kg of material costing £3.30 per kg.
It takes 18 minutes to make each item and labour costs £7.50 per hour for the first 1,900 hours each month and any additional hour used in each month is paid at 50% over the basic rate.
Variable overhead relates to labour hours including overtime hours worked and the fixed overhead costs are incurred evenly throughout the year.

9. Prepare the cash flow forecast from the operating budget and the statement of financial position assumptions.

Statement of financial position assumptions:
Receivables will increase by £1,900
Materials payables will increase by £13,450
Labour costs are paid in the period they are incurred
Other payables will reduce by £1,580

Operating budget	£	£
Sales revenue		481,000
Expenditure:		
Materials	199,000	
Labour	143,100	
Other costs	70,500	412,600
Operating profit		68,400

Cash flow forecast		£
Sales receipts		
Payments:	£	
Materials		
Labour		
Other costs		
Cash flow		

10. James Limited has completed its budget with the following assumptions:

- Material and labour costs are variable
- Depreciation is a stepped cost, increasing at every 6,500 units
- There is an allowance for an energy price fall of 2%

You are required to complete the alternative scenario column in the operating budget table below using the alternative scenario information given below and calculate the increase or decrease in profit.

Alternative scenario:

- Increase the selling price by 2.5%
- Reduce the sales volume by 5%
- Revise the energy price rise to 3.2%

Apart from the selling price per unit, do not enter any decimals. Round to the nearest whole number where applicable.

Operating budget	First draft	Alternative scenario
Sales price per unit	£38.00	
Sales volume	44,000	
	£	£
Sales revenue	1,672,000	
Costs:		
Materials	495,000	
Labour	422,400	
Energy	156,800	
Depreciation	112,000	
Total	1,186,200	
Gross profit	**485,800**	
Increase/ (decrease) in gross profit		

11. Prepare the raw material cost statement from the activity data provided.

Activity data	Items produced	Kg used	Cost (£)
Budget	14,000	50,400	342,720
Actual results	15,100	55,870	363,155

Raw material cost statement	£
Standard raw material cost of production	
Variances:	£ Fav/(Adv)
Material price	
Material usage	
Material cost	

12. A monthly operating statement is shown below with some explanatory notes. You are required to flex the budget, calculate variances and show whether each variance is favourable or adverse.

Original Budget		**Flexed Budget**	**Actual**	**Variance Fav/(Adv)**
31,500	Sales volume		34,000	
£		£	£	£
2,520,000	**Turnover**		2,856,000	
	Costs			
441,000	Material		510,000	
567,000	Labour		616,250	
6,300	Distribution		7,000	
151,000	Energy		164,000	
32,000	Equipment Hire		35,000	
182,000	Depreciation		180,000	
231,000	Marketing		235,000	
186,000	Administration		189,000	
1,796,300	Total		1,936,250	
723,700	Operating Profit		919,750	

Notes:
Material, labour and distribution costs are variable.
The budget for energy is semi-variable. The variable element is £4.00 per unit.
The budget for equipment hire is stepped, increasing at every 4,000 units of monthly production.
Depreciation, marketing and administration costs are fixed.

13. You are asked to review the operating statement shown below, and the additional information provided, and prepare a report by email.

	Budget (£)	Actual (£)	Variance (£) Fav/(Adverse)
Sales revenue (41,000 units)	902,000	943,000	41,000
Variable costs:			
Materials	246,000	250,510	(4,510)
Labour	278,800	275,110	3,690
Distribution	18,450	21,320	(2,870)
Power	22,140	23,370	(1,230)
Equipment hire	31,160	53,460	(22,300)
	596,550	623,770	(27,220)
Contribution	305,450	319,230	13,780
Fixed costs:			
Power	12,150	12,300	(150)
Depreciation	9,000	5,260	3,740
Marketing	6,800	10,050	(3,250)
Administration	45,000	46,000	(1,000)
	72,950	73,610	(660)
Operating profit	**232,500**	**245,620**	**13,120**

The budget has been flexed to the actual number of units produced and sold. The original budget was based on an expected sales volume of 49,000units.

The original budget assumed a mix of hiring equipment and the purchase of a new machinery for the production process but after the budget had been approved, the plant engineer later decided to only hire equipment and did not purchase the new machinery.

The marketing manager decided to increase the selling price for each product and expects this to help increase the profitability.

The Chief Executive can’t understand how these decisions were made without her knowledge. She also wants to know the effects of these changes on the standard cost of the product.

Write an email to the Chief Executive in which you explain:
i. the main reasons for the sales revenue, equipment hire and depreciation variances from the flexed budget.
ii. How the equipment hire and depreciation variances might have been avoided.
iii. The effect of the changes on the original standard cost of the product.