S5 BAFS Practice Paper (Set 4): Inventory Costing and FIFO, Marginal Costing and Break-even, Ratio Analysis, Time Value of Money and Loan Repayment, Marketing Mix and Corporate Social Responsibility

Senior Secondary BAFS

S5 BAFS practice paper Set 4: 100 marks on FIFO inventory costing, CVP, ratio analysis, time value of money, loans and marketing ethics, with full worked answers.

Question 1: Accounting Cycle, Depreciation and Trial Balance

Show all workings.

#	Question
1	A company buys a machine for $240,000 with an estimated residual value of $40,000 and a useful life of 5 years. Calculate the annual depreciation using the straight-line method.
2	Using the same machine, calculate the net book value at the end of year 3.
3	A month-end trial balance shows debit totals of $512,000 and credit totals of $508,500. Compute the difference and state which side of the suspense account it is entered.
4	Sales for the period are $480,000 and cost of goods sold is $300,000. Calculate the gross profit and the gross profit ratio.

Question 2: Inventory Costing (FIFO and Weighted Average)

Opening inventory is 100 units at $20 each; purchases are 200 units at $24 each and 150 units at $26 each; 300 units are sold during the period.

#	Question
5	Calculate the cost of goods sold under the first-in-first-out (FIFO) method.
6	Calculate the quantity and value of closing inventory under FIFO.
7	Calculate the weighted average cost per unit and the cost of goods sold under the weighted average method (2 decimal places).
8	Using the FIFO cost of goods sold and average inventory, calculate the inventory turnover (2 decimal places).

Question 3: Marginal Costing and Break-even Analysis

A product sells for $80 per unit, variable cost is $48 per unit and fixed costs are $240,000 per month.

#	Question
9	Calculate the unit contribution and the contribution ratio.
10	Calculate the break-even quantity in units and the break-even sales revenue.

#	Question
11	If 9,000 units are actually sold, calculate the profit.
12	Calculate the margin of safety in units and as a percentage.

Question 4: Financial Statement Ratio Analysis

Current assets are $420,000 (including inventory of $180,000), current liabilities $210,000, total liabilities $560,000, total assets $1,400,000, annual sales $1,260,000 and net profit $126,000.

#	Question
13	Calculate the current ratio and the quick ratio (2 decimal places).
14	Calculate total equity and the gearing ratio (2 decimal places).
15	Calculate the net profit margin and the total asset turnover.
16	Calculate the return on equity (ROE) and state which ratio most needs improvement.

Question 5: Time Value of Money and Loan Repayment

Show all workings and round money amounts to 2 decimal places.

#	Question
17	A principal of $50,000 earns simple interest at 4% per year for 3 years. Calculate the interest and the total amount.
18	The same principal is invested at 4% compounded annually for 3 years. Calculate the amount and the interest.
19	A loan of $120,000 carries 0.5% interest per month and is repaid in 24 equal monthly instalments. Calculate the monthly instalment, total repayment and total interest.
20	A credit card charges 2.5% per month compounded monthly. Calculate the effective annual rate (2 decimal places).

Question 6: Marketing Mix, Cost Decisions and Corporate Social Responsibility

A small business is reviewing next year promotional and product strategy.

#	Question
21	Plan A costs $40,000 in promotion and generates extra revenue of $96,000; Plan B costs $30,000 and generates $66,000. Calculate both returns on investment and recommend one.
22	Product X sells for $150 with a cost of $90; Product Y sells for $200 with a cost of $130. Calculate the gross margin and unit contribution of each, and state which should be expanded first when capacity is limited.
23	A new product has fixed costs of $180,000 and a unit contribution of $45. Calculate the break-even quantity and comment on the decision if market research shows only 3,000 units can be sold.

#	Question
24	Suggest two corporate social responsibility measures suitable for a small business and explain the benefits to brand image and customer loyalty.