S5 BAFS Practice Paper 4 | Inventory valuation, depreciation, income statement, ratios, cash budget, CVP

Senior Secondary BAFS

S5 BAFS practice paper with answers: weighted average inventory, depreciation, income statement, ratios, cash budget, CVP break-even. 100 marks.

1. Weighted average inventory valuation (16 marks)

Company A made only these purchases during the year. Show all working (answers to the nearest dollar or one decimal place).

#	Question	Answer and marking notes
1	(a) Opening inventory 200 units at $12 each; purchases of 300 units at $15 each and 100 units at $18 each. Find the total cost and total units available for sale.	Total cost = 200 x 12 + 300 x 15 + 100 x 18 = 8700 dollars; total units = 600.
2	(b) Using the weighted average method, find the average cost per unit.	Average cost = 8700 / 600 = 14.5 dollars.
3	(c) 450 units were sold during the year. Find the cost of sales.	Cost of sales = 450 x 14.5 = 6525 dollars.
4	(d) Find the closing inventory in units and in value, and check the cost allocation.	Closing inventory = 600 - 450 = 150 units, value = 150 x 14.5 = 2175 dollars; check: 6525 + 2175 = 8700 dollars, equal to the total cost available.

2. Straight-line and reducing balance depreciation (18 marks)

A machine costs $180,000 with an estimated residual value of $20,000 and a useful life of 4 years; the reducing balance rate is 25% a year.

#	Question	Answer and marking notes
5	(a) Find the annual depreciation charge under the straight-line method.	Annual depreciation = (180,000 - 20,000) / 4 = 40000 dollars.
6	(b) Find the accumulated depreciation and carrying amount after two years.	Accumulated depreciation = 40000 x 2 = 80000 dollars; carrying amount = 180,000 - 80000 = 100000 dollars.
7	(c) Under the reducing balance method, find the first-year depreciation and the carrying amount at the end of year 1.	Year 1 depreciation = 180,000 x 25% = 45000 dollars; year-end carrying amount = 180,000 - 45000 = 135000 dollars.
8	(d) Find the second-year depreciation and the carrying amount at the end of year 2, then compare the two methods.	Year 2 depreciation = 135000 x 25% = 33750 dollars; end of year 2 carrying amount = 135000 - 33750 = 101250 dollars. Comparison: straight-line carrying amount 100000 dollars is -1250 dollars higher than the reducing balance figure of 101250 because the latter charges more depreciation early.

3. Income statement and gross margin (18 marks)

Company B reports sales $520,000, opening inventory $60,000, purchases $300,000, closing inventory $80,000 and operating expenses $96,000.

#	Question	Answer and marking notes
9	(a) Find the cost of sales.	Cost of sales = 60,000 + 300,000 - 80,000 = 280000 dollars.
10	(b) Find the gross profit and the gross margin (two decimal places).	Gross profit = 520,000 - 280000 = 240000 dollars; gross margin = 240000 / 520,000 x 100% = 46.15%.
11	(c) Find the net profit.	Net profit = 240000 - 96,000 = 144000 dollars.
12	(d) Find the net margin and explain the gap between the two margins.	Net margin = 144000 / 520,000 x 100% = 27.69%; the gap of 18.46 percentage points is the operating expenses to sales ratio (96,000 / 520,000 = 18.46%).

4. Current ratio, quick ratio and inventory turnover (16 marks)

Company C has current assets of $240,000 (including inventory $90,000) and current liabilities of $120,000; inventory was $70,000 at the start and $90,000 at the end of the year; cost of sales is $320,000.

#	Question	Answer and marking notes
13	(a) Find the current ratio.	Current ratio = 240,000 / 120,000 = 2.00 times.
14	(b) Find the quick ratio.	Quick assets = 240,000 - 90,000 = 150,000 dollars; quick ratio = 150,000 / 120,000 = 1.25 times.
15	(c) Find the average inventory and the inventory turnover.	Average inventory = (70,000 + 90,000) / 2 = 80000 dollars; turnover = 320,000 / 80000 = 4.0 times.
16	(d) Find the inventory turnover period (365 days a year) and comment on inventory management.	Turnover period = 365 / 4.0 = 91.2 days, so inventory takes about three months to sell; turnover is slow and slow-moving stock and order quantities should be reviewed.

5. Cash budget and borrowing (16 marks)

Company D starts with cash of $50,000. Sales are collected 60% in the month of sale and 40% in the following month. December sales are $200,000 and January sales $300,000; January purchase payments are $150,000 and expenses $60,000.

#	Question	Answer and marking notes
17	(a) Find the cash receipts in January.	January receipts = 200,000 x 40% + 300,000 x 60% = 80,000 + 180,000 = 260000 dollars.
18	(b) Find the total cash payments in January.	Payments = 150,000 + 60,000 = 210000 dollars.
19	(c) Find the closing cash balance at the end of January.	Closing cash = 50,000 + 260000 - 210000 = 100000 dollars.
20	(d) If a minimum cash balance of $120,000 is required, how much must be borrowed at the end of January?	Shortfall = 120,000 - 100000 = 20000 dollars, so 20000 dollars must be borrowed, leaving a balance of 120,000 dollars.

6. Contribution margin and break-even (16 marks)

Company E sells at $50 a unit with a variable cost of $30 a unit and fixed costs of $240,000 a year.

#	Question	Answer and marking notes
21	(a) Find the unit contribution margin.	Unit contribution = 50 - 30 = 20 dollars.
22	(b) Find the contribution margin ratio.	Contribution margin ratio = 20 / 50 x 100% = 40%.
23	(c) Find the break-even quantity and break-even sales value.	Break-even quantity = 240,000 / 20 = 12000 units; sales value = 12000 x 50 = 600000 dollars.
24	(d) If the target profit is $80,000, find the required quantity and the margin of safety in units (taking that quantity as actual sales).	Required quantity = (240,000 + 80,000) / 20 = 16000 units; margin of safety = 16000 - 12000 = 4000 units.