S6 BAFS Practice Paper | Depreciation methods, gross margin, current and quick ratios, inventory turnover, break-even, cash budget and earnings per share

Senior Secondary Business, Accounting and Financial Management

S6 BAFS practice paper with answers: straight-line depreciation, margin analysis, liquidity ratios, break-even, cash budget and earnings per share.

Question 1 Straight-line and reducing-balance depreciation

A company bought a machine at the start of 2026 for $480,000. It is expected to last 7 years with a residual value of $60,000. The company is comparing straight-line depreciation with the reducing-balance method at 25% a year.

#	Question	Answer and marking notes
1	(a) Find the annual depreciation charge under the straight-line method.	Answer: annual depreciation = (480,000 - 60,000) / 7 = $60,000.
2	(b) Find the carrying amount after 3 years under the straight-line method.	Answer: carrying amount = 480,000 - 3 x 60,000 = $300,000.
3	(c) Find the depreciation charges for years 1 to 3 under the reducing-balance method and the carrying amount after 3 years.	Answer: year 1 = 480,000 x 25% = $120,000; year 2 = 360,000 x 25% = $90,000; year 3 = 270,000 x 25% = $67,500; carrying amount after 3 years = $202,500.
4	(d) Compare the accumulated depreciation over 3 years under the two methods and state which one better matches the benefit pattern of the machine.	Answer: straight line accumulates $180,000 against $277,500 under reducing balance, which is 54.2% more. Reducing balance charges more in early years and so matches a machine whose benefits are higher early and whose repairs rise later; straight line suits assets used evenly.

Question 2 Cost of goods sold, gross profit and net profit

A sole trader reports the following for 2026: sales $1,250,000; opening inventory $86,000; purchases $720,000; carriage inwards $14,000; closing inventory $96,000; administration expenses $148,000; selling and distribution expenses $96,000.

#	Question	Answer and marking notes
5	(a) Find the cost of goods sold.	Answer: cost of goods sold = 86,000 + 720,000 + 14,000 - 96,000 = $724,000.
6	(b) Find the gross profit and the gross profit margin to one decimal place.	Answer: gross profit = 1,250,000 - 724,000 = $526,000; gross margin = 526,000 / 1,250,000 x 100% = 42.1%.
7	(c) Find the net profit and the net profit margin to one decimal place.	Answer: net profit = 526,000 - 148,000 - 96,000 = $282,000; net margin = 282,000 / 1,250,000 x 100% = 22.6%.

#	Question	Answer and marking notes
8	(d) If closing inventory was overstated by $12,000, find the corrected gross profit, net profit and gross margin, state the direction of the error, then find the inventory turnover in times (two decimal places) and the average inventory period in days (one decimal place).	Answer: corrected gross profit = 526,000 - 12,000 = $514,000 at a margin of 41.1%; net profit = 282,000 - 12,000 = $270,000 at a net margin of 21.6%. Overstating closing inventory understates cost of goods sold, so both profit and assets are overstated. Turnover = 724,000 / 91,000 = 7.96 times; average period = 365 / 7.96 = 45.9 days.

Question 3 Liquidity ratios and return on capital employed

At 31 December 2026 a company has current assets of inventory $180,000, receivables $240,000 and cash $60,000, against current liabilities of $300,000. Credit sales for the year were $1,440,000 and opening receivables were $200,000. Profit before interest and tax was $320,000 on capital employed of $1,280,000.

#	Question	Answer and marking notes
9	(a) Find the current ratio and the quick ratio to two decimal places.	Answer: current ratio = 480,000 / 300,000 = 1.60; quick ratio = (480,000 - 180,000) / 300,000 = 1.00.
10	(b) If inventory of $60,000 is bought on credit just before year end and is still unpaid, find the new current ratio and quick ratio.	Answer: current assets $540,000 against current liabilities $360,000; current ratio = 1.50; quick ratio = (540,000 - 240,000) / 360,000 = 0.83; both ratios fall.
11	(c) Find the receivables turnover in times (two decimal places) and the average collection period in days (one decimal place).	Answer: average receivables = (200,000 + 240,000) / 2 = 220,000; turnover = 1,440,000 / 220,000 = 6.55 times; collection period = 365 / 6.55 = 55.8 days.
12	(d) Find the return on capital employed. The company then borrows $400,000 at 6% a year to buy back shares; find the new return and comment.	Answer: original = 320,000 / 1,280,000 x 100% = 25.0%; interest = $24,000, new capital employed $880,000, new return = 296,000 / 880,000 x 100% = 33.6%. The gain comes from gearing, but interest is fixed so the risk rises when profit falls.

Question 4 Contribution margin and break-even

A product sells for $180 a unit with a variable cost of $108 a unit. Fixed costs are $432,000 a year.

#	Question	Answer and marking notes
13	(a) Find the contribution per unit and the contribution margin ratio.	Answer: contribution per unit = 180 - 108 = $72; contribution margin ratio = 72 / 180 x 100% = 40.0%.
14	(b) Find the break-even quantity in units and the break-even sales revenue.	Answer: break-even quantity = 432,000 / 72 = 6,000 units; break-even revenue = 6,000 x 180 = $1,080,000.
15	(c) How many units are needed to earn a target profit of $180,000? If actual sales are 9,000 units, what is the margin of safety percentage?	Answer: target quantity = (432,000 + 180,000) / 72 = 8,500 units; margin of safety = (9,000 - 6,000) / 9,000 x 100% = 33.3%.

#	Question	Answer and marking notes
16	(d) If unit variable cost rises by 10% and the price is unchanged, find the new contribution per unit, the new break-even quantity as a whole number, and the percentage rise in break-even quantity to one decimal place.	Answer: new variable cost = $118.80, new contribution = $61.20; new break-even quantity = 432,000 / 61.20 = 7058.82, that is 7,059 units; rise = (7058.82 - 6,000) / 6,000 x 100% = 17.6%.

Question 5 Cash budget and bad debts

A company sells $300,000, $360,000 and $420,000 in January, February and March 2026. It collects 60% in the month of sale and 35% in the following month, with 5% becoming bad debts. Purchases are 50% of that month sales and are paid in the following month. Other cash expenses are $88,000 a month, paid in the month. Cash at 1 February 2026 was $45,000.

#	Question	Answer and marking notes
17	(a) Find the cash collected in February and in March.	Answer: February = 360,000 x 60% + 300,000 x 35% = 216,000 + 105,000 = $321,000; March = 420,000 x 60% + 360,000 x 35% = 252,000 + 126,000 = $378,000.
18	(b) Find the February cash payments and the cash balance at the end of February.	Answer: payments = January purchases 150,000 + 88,000 = $238,000; balance = 45,000 + 321,000 - 238,000 = $128,000.
19	(c) Find the March cash payments and the cash balance at the end of March.	Answer: payments = February purchases 180,000 + 88,000 = $268,000; balance = 128,000 + 378,000 - 268,000 = $238,000.
20	(d) Find the total bad debts for the first quarter and explain what bad debts mean for a cash budget.	Answer: quarterly sales = 300,000 + 360,000 + 420,000 = $1,080,000; bad debts = 1,080,000 x 5% = $54,000. Bad debts are sales that will never be collected, so a cash budget may only include the 95% that is collectable, otherwise inflows are overstated.

Question 6 Earnings per share and financing choice

A limited company has 400,000 ordinary shares of $1 in issue. Profit after tax for 2026 was $168,000 and dividends of $0.15 a share were paid. The company plans a $500,000 project earning 12% before tax, with profits tax at 16.5%. Option 1 issues 100,000 new shares at $5 each; Option 2 borrows $500,000 at 7% a year.

#	Question	Answer and marking notes
21	(a) Find the present earnings per share.	Answer: earnings per share = 168,000 / 400,000 = $0.42.
22	(b) Find the total dividend, the dividend cover in times and the payout ratio to one decimal place.	Answer: total dividend = 400,000 x 0.15 = $60,000; cover = 168,000 / 60,000 = 2.8 times; payout ratio = 60,000 / 168,000 x 100% = 35.7%.
23	(c) Option 1: find the extra profit after tax, the number of shares after issue, the new earnings per share and the percentage change to one decimal place.	Answer: extra profit after tax = 500,000 x 12% x (1 - 16.5%) = $50,100; shares = 400,000 + 100,000 = 500,000; new EPS = (168,000 + 50,100) / 500,000 = $0.436; change = 3.9%.

#	Question	Answer and marking notes
24	(d) Option 2: find the annual interest, the extra profit after tax, the new earnings per share and the percentage change, and state the risk of this option.	Answer: interest = 500,000 x 7% = $35,000; extra profit before tax = 60,000 - 35,000 = 25,000, so after tax $20,875; new EPS = (168,000 + 20,875) / 400,000 = $0.472; change = 12.4%. Borrowing gives the bigger rise in EPS, but interest is a fixed cost: if the project earns less than 7% or profit falls, interest eats into earnings and both financial risk and gearing rise.