MA2 Full Specimen Exam Answers

All questions are worth 2 marks

Question	Correct Answer
1	**Service costing** **Job costing** Accountancy firms provide a service and are most likely to use job costing as each of their customers have different needs and each job will have to be costed separately.
2	**Where the time series is approximately linear, the line of best fit can be estimated on a scatter graph – True** **Where the time series is not approximately linear, moving averages can be calculated - True** Scatter graphs can be used to estimate a line of best fit, but only where the relationship shown is approximately linear. Where no obvious linear relationship exists, moving averages can still be used to estimate the trend.
3	**Line J** At the level of activity shown, Line J represents the total contribution, At the breakeven point the total contribution will equal the total fixed costs. Below this level, the activity will make a loss and above this level the activity will make a profit.
4	**Has low sales value relative to joint products** **Accounted for by crediting the net realisable value to the work-in-progress account** By-products are products which are produced as part of a process, but which are incidental and have an insignificant value compared to the main product or products from the process. They are accounted for by treating their net realisable value as a deduction in costs which is a credit to the work-in-progress account. The by-product does not pick up a share of the joint costs.
5	**$5,200 favourable** Sales price variance is the difference between the actual sales revenue and the actual sales units at the standard selling price. The standard selling price is 50,000 / 5,000 = $10. The sales price variance is ((57,200 – (5,200 x 10) = $5,200. The actual sales are higher; therefore, the variance is favourable.
6	**$375** The total annual inventory holding cost is calculated as ((order quantity / 2) x holding cost per unit). ((250 / 2) x 3) = $375.
7	**Based on machine hours for Cutting and labour hours for Finishing** The basis for overhead absorption is generally based on the most important element for each department. In this case, machine hours are the most significant element for the Cutting cost centre and labour hours are the most significant element for the Finishing cost centre.
8	**32240** The depreciation will be based on the cost of the machine less the residual value ($166,200 - $5,000) = $161, 200. Year 4 will pick up 20% of the total depreciation. (0.20 x 161,200) = $32,240.

9	**Unexpected bulk discount offered by current supplier** **Less material needed due to change in product design** A general shortage of material causing price increases or inexperienced staff causing more material wastage would result in an adverse material cost variance. An unexpected bulk discount or a reduction in the actual material required for production would result in a favourable material cost variance.
10	**Sales price variance – Favourable** **Sales activity (volume) variance – Adverse** **Sales of 20,000 were budgeted for, but actual sales were 19,000 resulting in an adverse sales activity (volume) variance. The budgeted sales price was $6 per unit but the actual sales price was ($133,000/19,000) = $7, resulting in a favourable sales price variance.**

11	**19250** The project requires 400kg of material. The 150kg in inventory can be used as part of this. The alternative use for this is to sell it at $40/kg which is the relevant cost. For the remaining 250kg, these will have to be purchased at the current purchase price of $53/kg. The total relevant cost for the project is (150 x 40) + (250 x 53) = $19,250
12	**Department C** Dept A: 60,000 / 10,000 = 6 Dept B: 90,000 / 15,000 = 6 Dept C: 120,000 / 12,500 = 9.6 Dept D: 80,000 / 10,000 = 8 Therefore, Department C has the highest absorption rate.
13	**$83,000** Using the High Low method, the variable cost = ($72,000 - $22,000)/(24,000-4,000) = $2.50. Using the 4,000 units, the fixed cost = $22,000 – ($2.50 x 4,000) = $12,000. At a production level of 26,000 units, the total cost will be ($12,000 x 1.5) + ($2.50 x 26,000) = $83,000
14	**4.12** The cost per tonne/km is calculated by dividing the total cost by the total number of tonne/kms. Total tonne/km = (4 x 40 x 10) + (5 x 60 x 12) + (6 x 65 x 8) = 8,320. Cost per tonne/km = 34,295/8,320 = $4.12
15	**1 and 2 only** The objectives of cash budgeting are to anticipate shortages and surpluses which help ensure that any funds which may be required will be available as required. Trade receivables relate to credit sales and are not monitored by cash budgeting.
16	**A budget that is adjusted to the actual level of activity achieved** Flexed budgets are used for the purposes of variance calculations. The actual results are compared to the flexed budget which has been adjusted to take account of the actual level of activity.

17

Standard hours of actual output ÷ Actual hours

This is the correct calculation for the labour efficiency ratio.

18

$24,000

	Year 1	Year 2
Indirect costs	35,000 + 45,000 = 80,000	80,000 x 1.2 = 96,000
Square metres	A: 10,000	A: 10,000
	B: 5,000	B: 5,000
	C: 0	C: 5,000 (balancing figure)
	total: 10,000 + 5,000 = 15,000	15,000 x 1.33 = 20,000

B will pick up (5,000/20,000) x $96,000 = $24,000

19

1, 2 and 3

All the items are treated differently in cash accounting compared with accruals accounting. Depreciation is not a cash flow, but it is included in accrual accounting. Sales will not all be cash sales and the purchase of materials may involve credit. Accrual accounting takes account of trade payables and trade receivables while cash accounting in only concerned with when the actual payments or receipts occur.

20

12.50

The service unit for a hotel is bed-nights. The cost per bed-night is 1,500,000 / 120,000 = $12.50

21

The breakeven point is $50,000 in sales revenue
The Margin of Safety % is 69% (to the nearest whole number)

Breakeven point in sales revenue = fixed costs/contribution to sales (C/S) ratio. The C/S ratio = ($16 - $8)/$16 = 50%. Breakeven point in sales revenue = ($2.50 x 10,000)/50% = $50,000.
Margin of safety % = (budgeted sales – breakeven sales)/budgeted sales. This can be calculated in units or in $sales revenue. Budgeted sales revenue = $16 x 10,000 = $160,000. Margin of safety = ($160,000 - $50,000)/$160,000 = 68.75% (rounded to 69%)

22

703290

Contribution = sales – variable costs. Unit contribution = ($70 – $29.50 – $4.80) = $35.70. Total contribution = $35.70 x 19,700 = $703,290

23

Fixed overheads were under-absorbed by $840

Fixed overheads absorbed (20,000 / 4,000 x 4,200)	21,000
Actual fixed overheads	21,840
Under absorbed fixed overheads	840

24	**The margin of safety will decrease, and the break-even point will increase** Breakeven point = fixed costs/contribution per unit. If the cost of raw materials increases, the contribution per unit will fall, resulting in a higher breakeven point. Margin of safety = budgeted sales – breakeven sales. If the breakeven point is higher, the margin of safety will be lower.
25	**126** If 90 bags equate to 25%, (90/0.25 x 0.35) = 126 bags relates to 35%.
26	**$8.65** Using the high low method, the variable cost will be (51,652 – 47, 328) / (2,900 – 2,400) = $8.65
27	**Percentage sales volume of each car model for the last 12 months – Pie chart** **The general trend of electric car sales over the last 12 months – Line graph** Pie charts are used to show the relative sizes of a total amount, such as the percentage sales value of each type of car. A line graph would not show this clearly. A line graph, however, would be suitable for showing a general trend over time.
28	**Profit lower Inventory valuation lower** When inventory levels are increasing, marginal cost will give a lower profit. The inventory valuation using marginal costing is always lower than the inventory valuation using absorption costing.

29	**$684,940** Cash receipts = (opening trade receivables less bad debt write off) + sales – closing trade receivables. (206,900 – 4,360 + 724,000 – 241,600) = $684,940
30	**Material only** 30,000 units require (30,000 x 5) = 150,000 kg of material and (30,000 x 11) = 330,000 hours of direct labour. With 340,000 hours of labour and 140,000kg of material available, only material is a limiting factor.
31	**115** The capacity utilisation ratio can be calculated as the activity ratio / efficiency ratio. (1.035 / 0.90) = 1.15 = 115%
32	**When the total contribution is equal to total fixed costs** Breakeven occurs when the total contribution is equal to the total fixed costs. Any contribution above this level will result in a profit.
33	**The annual depreciation charge is not a relevant cost** **Fixed costs would have a relevant cost element if a decision causes a change in their total expenditure** Material and labour can have an opportunity cost. Material held in inventory must be taken account of when calculating relevant cost.

<table>
<tr><td>34</td><td>$410

When LIFO is used, the last items received in to stock are the first to be issued to production. The issue on Sept 9 would be made up of 50 units from Jun 6 and 20 units from Jun 4. (50 x 6) + (20 x 5.5) = $410.</td></tr>
<tr><td>35</td><td>$2,600 Positive

NPV = PV of cash flows – initial investment. ((4,000 x 5.65) – 20,000) = $2,600 positive.</td></tr>
<tr><td>36</td><td>243

The minimum payment will be given when the number of units produced is less than or equal to 75 ($45/$0.60), so on Tuesday, Wednesday and Thursday. The total earnings for the week will be (90 x 0.6) + 45 + 45 + 45 + (90 x 0.6) = $243.</td></tr>
<tr><td>37</td><td>$12,000

The value of the investment now = 15,972 / 1.1^3 = $12,000</td></tr>
<tr><td>38</td><td>Product D, Product B, Product C, Product A

The ranking of products should be done based on contribution per unit of limiting factor. In this case the limiting factor is skilled labour.

<table>
<tr><td></td><td>Product A</td><td>Product B</td><td>Product C</td><td>Product D</td></tr>
<tr><td>Contribution</td><td>2.80</td><td>2.60</td><td>1.90</td><td>2.40</td></tr>
<tr><td>Hours of skilled labour per unit</td><td>1.4</td><td>1.2</td><td>0.9</td><td>1.0</td></tr>
<tr><td>Contribution per hour of skilled labour</td><td>2.00</td><td>2.17</td><td>2.11</td><td>2.40</td></tr>
<tr><td>Ranking</td><td>4</td><td>2</td><td>3</td><td>1</td></tr>
</table>
Therefore, the products should be made in the order: D, B, C, A.</td></tr>
<tr><td>39</td><td>Part of a business where management are responsible for decisions regarding the purchase of non-current assets

An investment centre is a part of a business in which the manager is responsibility for costs, revenue and investment decisions.</td></tr>
<tr><td>40</td><td>1, 2 and 3

In selecting a communication method (letter, email, telephone call etc) it is important to consider the cost of the method, the degree of confidentiality required, and the speed of delivery required.</td></tr>
<tr><td>41</td><td>Depreciation of a non-current asset – No
Payment for the purchase of a non-current asset - Yes

Depreciation is a non-cash item so would not appear in a cash budget. The payment for the purchase of a non-current asset would involve the movement of cash and would therefore be included in a cash budget.</td></tr>
<tr><td>42</td><td>Saving per machine hour by manufacturing rather than buying-in

As machine hours are the limiting factor, the company needs to ensure that they are making the best use of this limited resource. This means that when the organisation is deciding whether to make a product internally or buy in from a supplier, they need to consider how much they would save per machine hour if they made the product</td></tr>
</table>

	internally rather than buying in.
43	**88500** Closing inventory = opening inventory + production – sales. (0 + 400,000 – 394,000) = 6,000. Under marginal costing, inventory is valued at variable production cost. The value of the closing inventory is therefore 6,000 x 14.75 = $88,500.
44	**375 kg** The minimum inventory level = reorder level – (average usage x average lead time) ((1,500 – (450 x 2.5)) = 375kg.
45	**Non-negotiable** A certificate of deposit is a fixed term investment with a specified interest rate issued by a bank.
46	**The difference in units between the expected sales volume and the break-even sales volume** The margin of safety is calculated as the budgeted (expected) sales – breakeven sales. It can also be calculated as a %.
47	**4** Payback is achieved when cash inflows from a project equal the cash outflows. Cash outflows = $120,000 As cash inflows are regular, payback can be calculated as $120,000/$30,000 = 4 years
48	**Giving more credit to customers** **Purchasing new non-current assets** Giving more credit to customers and purchasing new non-current assets will involve an outflow of cash which will contribute to a cash deficit. Taking more credit from suppliers and reducing inventories will improve operational cash flows which should in turn lead to an increased cash surplus.
49	**2 and 3 only** Overtime premium is an indirect cost so would have no effect on direct labour costs. Higher skilled labour would cost more and if less materials were used; the material variance would be favourable. Statement 4 does not tie in with the variances shown.

50	**2 and 4** A treasury department would generally be involved in currency management and the investment of surplus funds. The credit control department or general finance function would usually deal with credit control and debt collection.