

Mark Scheme (Results)

January 2010

Principal Learning

Manufacturing and Product Design MP201
Running a Manufacturing Business

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question Number	Answer	Mark
1	<ul style="list-style-type: none"> • Large • High volume • Medium-large 	(1)

Question Number	Answer	Mark
2	<ul style="list-style-type: none"> • Micro • Small • Sole-trader • Mini 	(1)

Question Number	Answer	Mark
3(a)	<ul style="list-style-type: none"> • Multiple levels (1) • Pyramid (1) • Large base level / small top level (1) • Workers supervised/ managed by level above (1) • Single manager / line manager (1) • Chain of command/different levels of management (1) • Rigid (1) • Wide spa of control at base (1) <p>Any other suitable answer. 1 mark per response.</p>	(3)

Question Number	Answer	Mark
3(b)	<p>Identification of disadvantage (1), description (1) or 2 identities.</p> <p>Poor communication (1), more information travels down hierarchy than up (1).</p> <p>Slow decision making (1), management decisions filtered or modified through too many people (1).</p> <p>Remote management (1), loss of team ethic (1).</p> <p>Increased cost (1), administration of communication (1).</p> <p>Lack of flexibility (1), full structure needs to be in place (1).</p> <p>Any other suitable answer.</p>	(2)

Question Number	Answer	Mark
3(c)	<p>Identification of disadvantage (1), description (1).</p> <p>More than one manager (1), can lead to confusion (1).</p> <p>More complex system to manage (1), administrative difficulties (1).</p> <p>Complex decision making (1), great number of inputs (1).</p> <p>Difficult to implement new projects (1), lack of ownership (1).</p> <p>Any other suitable answer.</p>	(2)

Question Number	Answer	Mark
4(a)	Decentralised	(1)

Question Number	Answer	Mark
4(b)	<p>Learners produce a simple drawing:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <pre> graph TD W1[Worker] <--> M[Manager] W2[Worker] <--> M W3[Worker] <--> M </pre> </div> <p>Or:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <pre> graph TD M[Manager] --> W1[Worker] M --> W2[Worker] M --> W3[Worker] M --> W4[Worker] </pre> </div> <p>Manager as focus (1) Two-way communication with manager (1)</p>	(2)

Question Number	Answer	Mark
5	Distribution (1) OR Logistics (1)	(1)

Question Number	Answer	Mark
6	Marketing	(1)

Question Number	Answer	Mark
7	<p>To a maximum of 2 marks, 1 mark for each to a maximum of 2:</p> <p>Ensure products work (1) before leaving factory (1)</p> <p>Stop products needing to be sent back (1) from customer (1)</p> <p>Find out how many products do not work (1) at the end of process (1)</p> <p>Measure/monitor products/processes (1) against specification (1)</p> <p>Any other suitable answer</p>	(2)

Question Number	Answer	Mark
8	<p>1 mark for each of the following to a maximum of 2 marks</p> <p>Administers/carries out quality control (1)</p> <p>Samples/monitors production to ensure quality within tolerance (1)</p> <p>Analyses quality data to identify production areas that need correction (1)</p> <p>Ensure production keeps to agreed quality levels/specification (1)</p> <p>Ensures tools/equipment are set within tolerance (1)</p>	(2)

Question Number	Answer	Mark
9	<p>1 mark for each of the following to a maximum of 2 marks</p> <p>Ensures product design can be manufactured within tolerance (1)</p> <p>Suggests changes to product design to enable quality checks (1)</p> <p>Analyses quality data to identify product design areas that need correction/modification (1)</p>	(2)

Question Number	Answer	Mark
10 (a)	<p>Evaluates design specification (1)</p> <p>Identification of responsibility (1), description (1) to a maximum of 2 marks</p> <p>Provide safe work premises (1), for employees and visitors (1)</p> <p>Make the workplace safe (1), ensure plant and machinery safe (1)</p> <p>Prevent health risks (1), training and supervision for hazardous situations (1)</p> <p>Provide correct equipment (1), ensure it is maintained/used correctly (1)</p> <p>Set up emergency plan (1), report accidents to correct authority (1)</p> <p>Provide first aid facilities (1), provide health supervision (1)</p>	(2)

Question Number	Answer	Mark
10(b)	<p>Identification of responsibility (1), description (1) to a maximum of 2 marks</p> <p>Not to put other people at risk (1), by doing or not doing something at work (1)</p> <p>Take care of own health and safety (1), avoid loose clothing/jewellery/long hair if operating machinery (1)</p> <p>Understand company's health and safety policies (1), get training (1)</p> <p>Tell employer if health/ability to work changes (1), cooperate with employer (1)</p> <p>Good housekeeping (by the employee) (1) to avoid accidents (1)</p>	(2)

Question Number	Answer	Mark
11(a)	<p>1 mark for each of the following to a maximum of 3 marks</p> <ul style="list-style-type: none"> • Service • Quality • Reputation • Competitive attitudes 	(3)

	<ul style="list-style-type: none"> • Integrity • Reinvestment • Staff development • Training • Profit • R&D 	
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Question Number	Answer	Mark
11 (b)	<p>Low response (1) Detailed response (2)</p> <p>Improved performance (1), promotes increased sales (1)</p> <p>Durability (1), increased target market (1).</p> <p>Status of product (1), ability to charge more (1).</p> <p>New features (1), viral marketing (1).</p> <p>Planned product obsolescence (1), continued demand (1).</p> <p style="text-align: right;">(2 x 1) (2 x 1)</p> <p>No repetition</p>	(4)

Question Number	Answer	Mark
12	<p>1 mark for each of the following to a maximum of 3 marks</p> <p>Reduce:</p> <p style="padding-left: 20px;">Direct costs, materials e.g. less stock, labour etc.</p> <p style="padding-left: 20px;">Indirect costs, power, management, rate/rent</p> <p style="padding-left: 20px;">Other ways of increasing efficiency</p> <p>Any other suitable answer</p>	(3)

Question Number	Answer	Mark
13	<p>Increase the selling price (1), by the same increase as the flour (1)</p> <p>Alter the recipe (1) to reduce flour required (1)</p> <p>Sell more (1) through promotion (1)</p>	(2)

Question Number	Answer	Mark
14	<p>Low response (1)</p> <p>Detailed response (2)</p>	(4)

	<p>Bank balance (1), money available within overdraft facility (1).</p> <p>Existing commitments (1), need to pay staff/suppliers/creditors (1).</p> <p>Known current income (1), predicted return on investment (1).</p> <p>Payback time on investment (1), cost benefit analysis (1).</p> <p>Ability to pay bills (1), avoid bankruptcy (1).</p> <p style="text-align: right;">(2 x 1) (2 x 1)</p>	
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Question Number	Answer	Mark
15(a)	Loss, will also accept minus, or negative number	(1)

Question Number	Answer	Mark
15(b)	October	(1)

Question Number	Answer	Mark
15(c)	<p>$200 + 3210 - 535 - 1200$ (1)</p> <p>Also accept calculation in steps:</p> <p>$200 + 3210 = 3410$ $535 + 1200 = 1735$</p> <p>$3410 - 1735 =$ (1)</p> <p>November's Closing balance = £ 1675 (1)</p>	(2)

Question Number	Answer	Mark
16	<p>Low response (1) Detailed response (2)</p> <p>1 mark for saying the cost will reduce, 1 extra mark for identifying any of the contributing factors,</p> <p>such as: bulk buying of materials increased automation labour savings set up costs spread over larger manufacturing quantity any other efficiencies identified which link to question</p> <p style="text-align: right;">(2 x 1)</p>	(4)

	(2 x 1)	
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Question Number	Answer	Mark
17(a)	Profit & Loss statement, accept P&L	(1)

Question Number	Answer	Mark
17(b)	$853000 - 813000 = \text{£}40000$	(1)

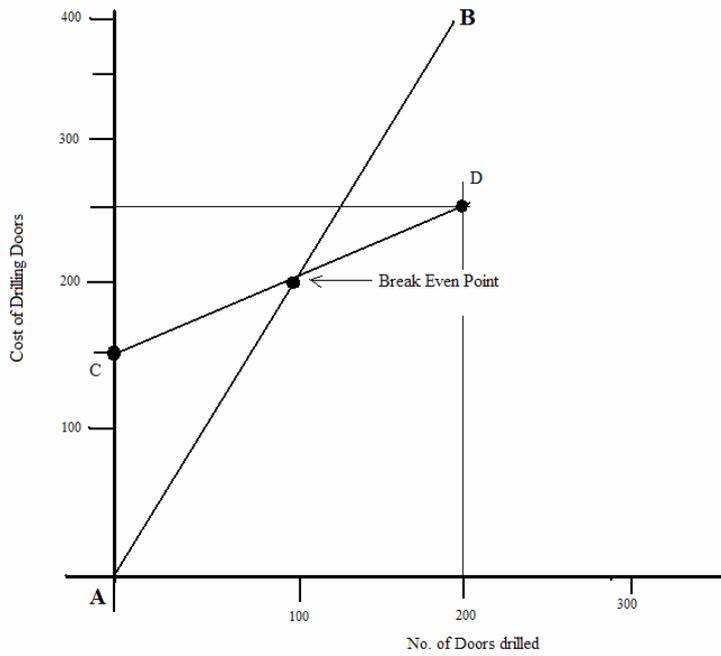
Question Number	Answer	Mark
17(c)	$980000 - 812000 = \text{£}168000$	(1)

Question Number	Answer	Mark
17(d)	$168000 - 84900 = \text{£}83100$ (if error made in (c) Carry through error for 1 mark)	(1)

Question Number	Answer	Mark
17(e)	1 mark for each of the following to a maximum of 2 marks; Insurance, Accountancy fees, Interest, Depreciation, Transport, Plant hire, water/services. Any other suitable answer	(2)

Question Number	Answer	Mark
18(a)	$150 + (200 \times 0.5) = \text{£}250$ 1 mark for including installation cost 1 mark for correct answer	(2)

b) - ci)



- 1 mark for correctly plotting point D (Q18b) (1 mark)
- 1 mark for drawing a line between point C and D (Q18b) (1 mark)
- 1 mark for correctly labelling break even point (or BE point), where CD crosses AB (Q18ci) (1 mark)

Question Number	Answer	Mark
18(c)(ii)	100	(1)

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