

Complete, fold and seal
(see note 2 below)

FORENAME(S): Jack

12 Pages

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

1	Student Number	~~81110406~~ 1503512/1
2	Title of Examination Paper	Management Innovation and Sustainability
3	Module Code	GOAC 5004 - 003
4	Date and Time of Examination	14/5/18 11:00 Am
5	Examination Venue	Main Hall Gower College
6	Seat Number	19
7	Number of Answer Books handed in	

[illegible]

(Gweler yr ochr arall am y fersiwn Cymraeg)

Section A.

Q1

a)

Year	depreciation	Value
0	0	£30,000
1	£7,500	£22,500
2	£7,500	£15,00
3	£7,500	~~£6,000~~ £7,500

$$25\% = 30,000 \times 0.25 = \text{£}7,500 \quad \checkmark \quad \checkmark$$

4
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b)

Year	depreciation	Value
0	0	£30,000
1	£7500	£22,500
2	£5625	£16,875
3	£4218.75	£12,656.25

- c) Advantages of Straight line method;
- easy to calculate. $\checkmark$
 - assets can be written off completely with this method. $\checkmark$

Disadvantages of Straight line method;

- unsuitable for use on assets with high value and high life expectancies.
- Maintenance cost can be expensive in the later years with this method. $\checkmark$

Advantages of reducing balance method;

- easy to calculate
- maintenance cost and depreciation go hand in hand so either aren't too drastic.

Disadvantages of reducing balance method;

- can only be calculated if the residual value is known
- depreciation is high in the early years

4
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ok

d) Mr Whitehall will be better off using reducing balance as he'll have more money at the end of for his assets.

e) $238 \times 57 = 13566$ ~~break even point~~ $\frac{\text{amount}}{\text{units}}$

$30,000 \div$ ~~break even point~~ $\frac{\text{units}}{\text{fixed quantity cost}}$

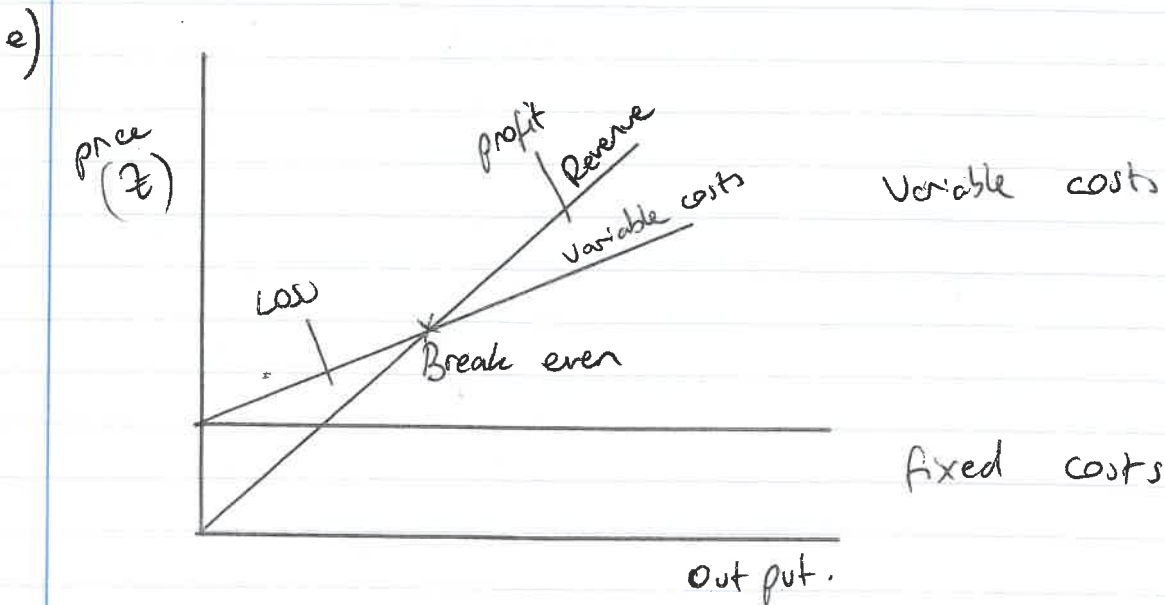
~~break even point~~ $\frac{\text{amount of sales (units)}}{\text{cost per unit}}$

$\text{break even} = \frac{\text{fixed costs}}{\text{cost per unit}}$

$= 30,000 \div 238 - 57$

$= 69.05$

$\downarrow$ ~~$238 \times 12 = 2856$~~



Q3

a) overheads

$$\frac{2,500 + 4,000 + 6,000 + 4,000 + 17,000}{6000} = 5.58$$

$$5.58 \times 8 = 44.64$$

$$75 \times 44.64 = 3348$$

direct

$$\frac{70,000}{6000} = 11.66 \times 8 = 93.28$$

$$93.28 \times 75 = 6996$$

materials

$$2105 \times 75 = 157875$$

$$\begin{array}{rclcl} \text{Over-heads} & + & \text{direct costs} & + & \text{materials} & = & \text{Total} \\ 3348 & + & 6996 & + & 157875 & = & 165219 \end{array}$$

$$b) 165219 \times 0.25 = 41304.75 \text{ (25\%)}$$

$$165219 + 41304.75 = 206523.75$$

Q4
a)

Location	x	y	demand	xc total	y total
S1	87	18	86	7482	1548
S2	74	33	74	5476	2442
S3	12	75	92	1104	6900
S4	94	18	22	2068	396
C1	52	31	87	4524	2697
C2	36	87	96	3456	8352
C3	24	63	64	1536	4032
C4	16	71	53	848	3763
C5	38	52	79	3002	4108
Total			653	29496	34238

$$x \text{ total} = x \times \text{demand}$$

$$y \text{ total} = y \times \text{demand}$$

$$\text{grand total } x \div \text{grand demand} = x \text{ co-ord inate}$$

$$\text{grand total } y \div \text{grand demand} = y \text{ co-ord inate}$$

$$x = \frac{29496}{653} = 45.17^\circ$$

$$y = \frac{34238}{653} = 52.43^\circ$$

The distribution centre should be located at $x = 45.17$ and $y = 52.43$ to be at the centre of the supply / customer locations.

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cl

- b) - Government are pressing for more eco-friendly methods. e.g. increasing road tax & fuel prices so this will negatively impact logistic company's.
- More people on the roads. This is causing an increase in congestion.

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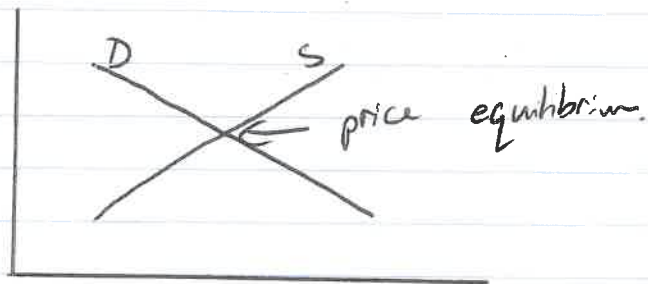
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5

a) demand is the desire of products from the customer to be placed on the market.

Supply is the amount of products which is available to the supplier.

Price is where these demand + supply meet. It is also called price equilibrium.



b) Branded Ford transit vans are would be sensitive to change. meaning they would be elastic. This is due to the vast amount of tyres available on today's market so customers would go else where to buy tyres.

Diesel fuel on the otherhand ~~is~~ is the opposite. ~~That~~ It is inelastic. This is because fuel is a necessary product. and e.g. if you were out of fuel you'd have to buy some no matter how much it is. (under the circumstances)

c) - They will need to know how much it cost to make the helmet along with the costs of running a business. This is to make sure they don't lose money.
- Need to carry out market research on;
• Customers
• Competition.

2
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- need to ~~try~~ try and predict ~~what~~ how the market will react.

- need to

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ii) Cost plus = work out the overhead + material cost + direct cost then add a profit percentage.
Market

Price Skimming - Set a high initial price then gradually lower over-time ✓

Price Penetration - Set a low initial price to capture a share of the market then increase over-time. ✓

3

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Q6

a) - if they make these changes then the attraction of entrants, TV coverage and sponsorships will ~~gain~~ gain profit.

- Due to the increasing eco-friendly society which is occurring, Government regulations on emissions may be forcing ~~the~~ the organisation to be more eco-friendly.

b) Political

- Strict rules + regulations clamping down on emissions

Economical

Economical

- ~~Atter~~ taxes + restrictions on emissions. meaning they have to convert.
- Inflation on fuel prices.
- foreign exchange rates may put a strain on organisation

d

Tech Social

- rise of social media is growing so it's an advertising platform for an eco friendly ~~more~~ organisation
- Public may be pushing for changes

Technological

- New technological advancements in car engines - meaning that the use of hybrids + electric cars will still allow the cars to perform quickly.

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