A level Business

Collated calculate questions & mark schemes from International A Level Business (YBS11) to support teaching A Level Business qualification (9BS0)
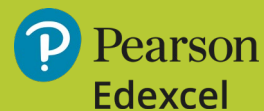
Ready to use support materials

Repurposed assessment materials from International A Level in Business (YBS11) to support teachers of A Level Business (9BS0)

Introduction

The following ready to use pack includes example calculation exam questions and mark schemes taken from the International A level in Business papers. It includes questions on many different topics including supply and demand; profits; ratios; simple pay back; and are suitable for students studying A Level Business when practicing calculate questions.

This pack allows students to complete the questions at their own pace and mark their own work, gaining practice in the different calculations they are expected to do for the UK qualification papers.

Each question has been linked to a section of the A Level specification so that teachers can allocate sections they are teaching or provide students with the entire pack to work through at their own pace.

Theme 1.1.1

The total revenue in 2018 for global chocolate sales was $130bn.

(b) Using this data and Extract B, calculate, to two decimal places, the total percentage market share of the top three chocolate manufacturers. You are advised to show your working.
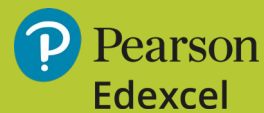
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Extract B

The top five global chocolate manufacturers (2018)

Company	Revenue 2018 ($USbn)
Mars Wrigley Confectionery (USA)	18.00
Ferrero Group (Italy)	12.40
Mondelēz International (USA)	11.80
Meiji Co Ltd (Japan)	9.70
Hershey Co (USA)	7.80

Question Number	Answer	Mark

1(b)	**Knowledge 1, Application 2, Analysis 1**
	
	Quantitative skills assessed:
	QS2: Calculate, use and understand percentages and percentage change.
	
	Knowledge
	1 mark for identifying a suitable formula for percentage:
	   • revenue of top three brands / total revenue x 100 **(1)**
	
	Application
	Up to 2 marks for selecting the correct data:
	   • 18+12.40+11.80 = 42.2 **(1)** / 130 x 100 **(1)**
	
	Analysis
	1 mark for calculating the percentage share:
	   • 32.46% **(1)**
	
	NB: If no working is shown, award marks as follows:
	If the answer given is 32.46% award 4 marks.
	If the answer given is 32.46 award 3 marks.	

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Theme 1.1.1

(b) Using the data in Extract C, calculate the **monthly** sales volume for *Sew Sew*.
You are advised to show your working.

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Extract C

Sew Sew

Gitte is a sole trader. She operates a small sewing business, *Sew Sew*, from her flat in
Copenhagen, Denmark. She set up the business in 2011, after obtaining a small bank loan.
At first, *Sew Sew* made a range of garments. However, sales of one item, a bib* for a baby,
were much higher than everything else she made. Therefore, *Sew Sew* now specialises in   5
making bibs for babies.

Sew Sew sells a range of bib designs throughout the year, using an online sales platform.
It also makes speciality bibs for international occasions such as the football World Cup and
the Olympic Games. Gitte tries to have an inventory of standard bibs so she can switch to
making the speciality bibs when there is an increase in demand. The price of each bib is   10
125 Danish Krone (DKK) regardless of the design.

Even though costs are higher, *Sew Sew* prefers to use a velcro fastening to attach the
bib around the neck of the baby instead of string. "European safety advice warns of the
danger to children when things are tied around their necks," said Gitte. "Velcro separates
easily when pulled apart, so it is much safer".   15

Gitte continued, "Sewing is my hobby and I enjoy doing that for work. Even though sales
revenue is 480 000 DKK per year, I only earn the minimum wage of 110 DKK per hour. I
used to earn 135 DKK per hour working part-time at *McDonald's* but that was just to earn
some money between studying and deciding what I really wanted to do."

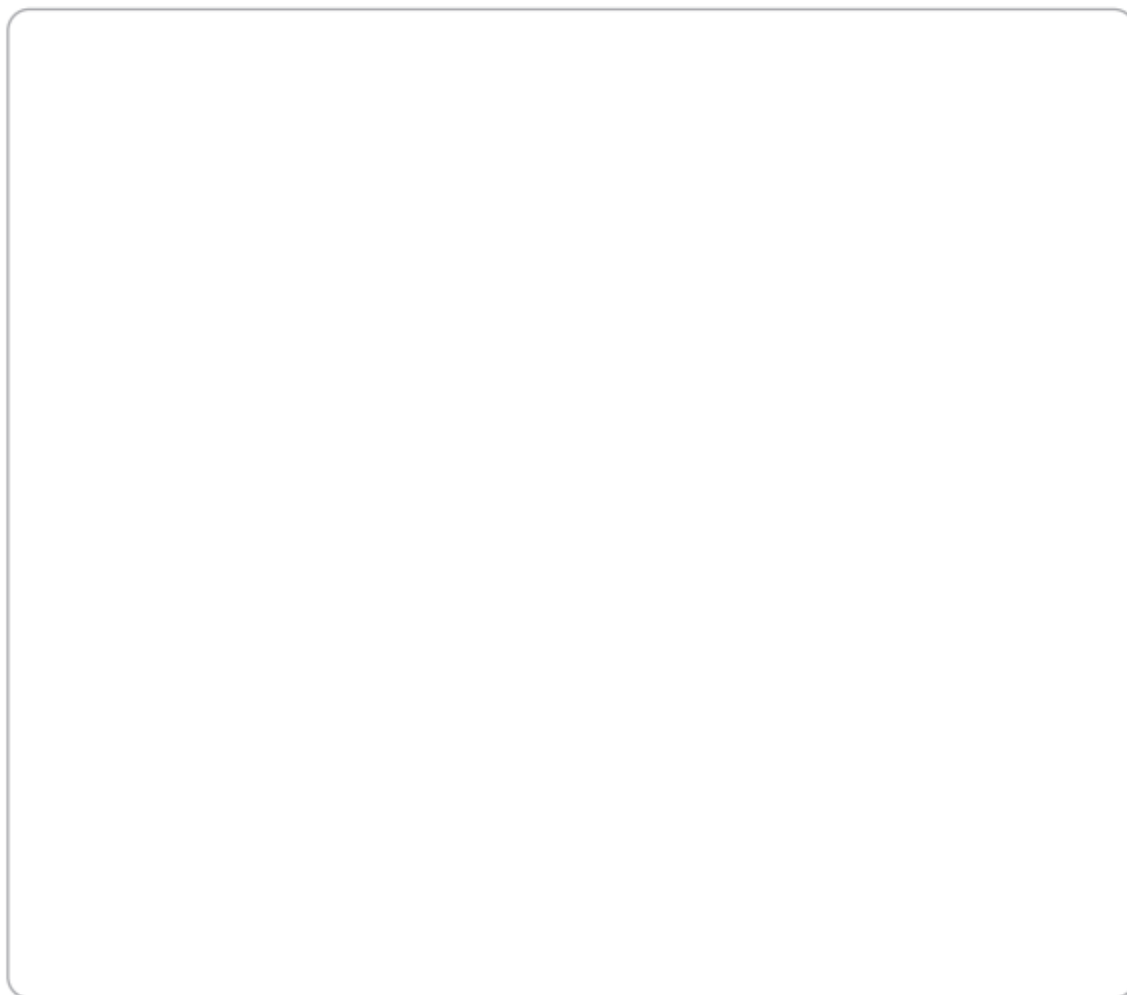* bib: a piece of cloth worn around a baby's neck to keep its clothes clean while eating   20

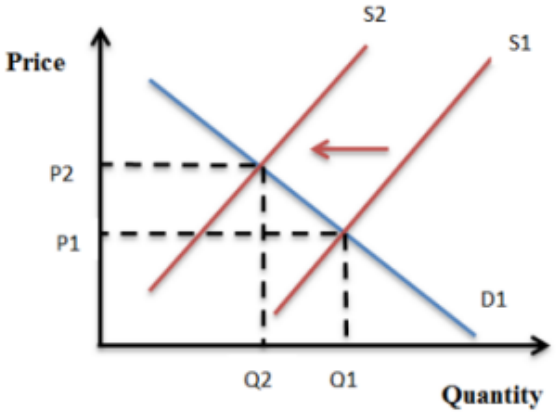| Question Number	Answer	Mark
2(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS5**: Calculate cost, revenue, profit and break-even **Knowledge** 1 mark for identifying the formula for sales volume: • $\dfrac{\text{Sales revenue}}{\text{price}}$ **(1)** **Application** Up to 2 marks for selecting the correct data from Extract C: • $\dfrac{480\ 000\ \text{DKK}}{12}$ = 40 000 DKK **(1)** • $\dfrac{40\ 000\ \text{DKK}}{125\ \text{DKK}}$ **(1)** **Analysis** 1 mark for calculating the sales volume: • = 320 bibs **(1)** **NB: If no working is shown, award marks as follows:** • If the answer given is 320 bibs/units award 4 marks • If the answer given is 320 award 3 marks	(4)

Theme 1.2.3

1 (a) Construct a supply and demand diagram to show the market for Alaskan seafood in China after the 25% tariff was imposed by China.
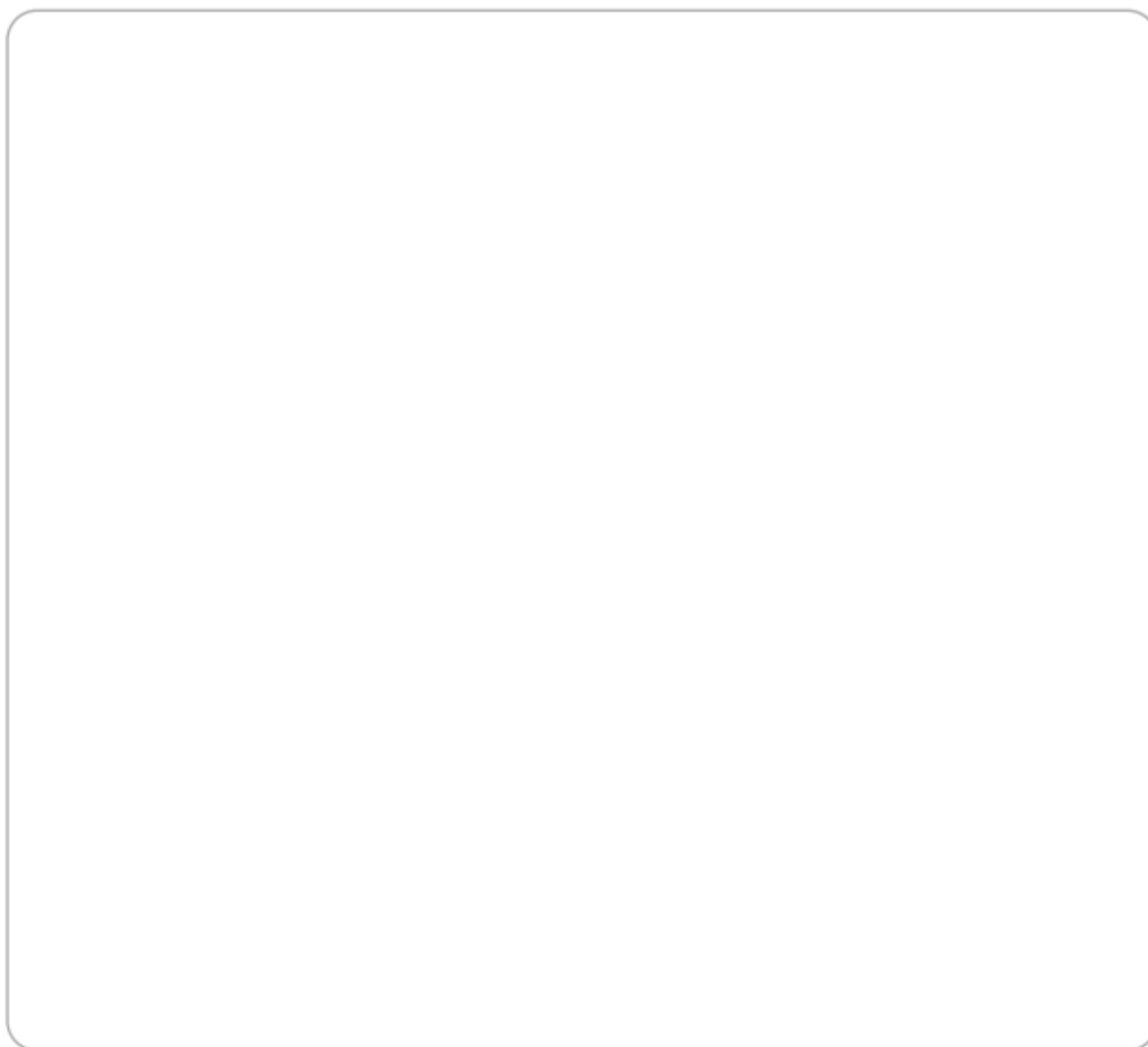
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1(a)	Answer	
	Knowledge 1, Application 2, Analysis 1	
	Quantitative skills assessed: **QS3:** construct and interpret a range of standard graphical forms. **Knowledge** 1 mark for correctly constructing a supply and demand diagram with correctly labelled axes as 'price' and 'quantity' **(1)**. **Application** Up to 2 marks for: Showing supply and demand curves with original equilibrium **(1)**. Shifting the supply curve to the left **(1)**. **Analysis** 1 mark for showing the new equilibrium and its effect on price (increasing) and quantity supplied (decreasing) **(1)**. 	**(4)**

(b) Construct a supply and demand diagram to show the impact of increased advertising by *Lehman's* on the handmade tools market.

(4)

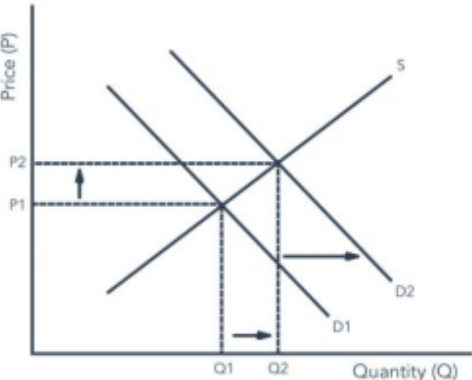| Question Number	Answer	Mark
2 (b)	**Knowledge 1, Application 2, Analysis 1** **Quantitative skills assessed:** **QS3:** construct and interpret a range of standard graphical forms. **Knowledge** 1 mark for correctly constructing a supply and demand diagram with correctly labelled axes as 'price' and 'quantity' **(1)** **Application** Up to 2 marks for: • Showing original equilibrium price and quantity **(1)** • Shifting the demand curve to the right **(1)** **Analysis** 1 mark for showing the new equilibrium and its effect on price (increasing) and quantity (increasing) **(1)** 	**(4)**

Theme 1.2.3

Milk and cream are used to produce ice cream.

(b) Construct a supply and demand diagram to show the impact of a decrease in the price of milk and cream on the ice cream market.

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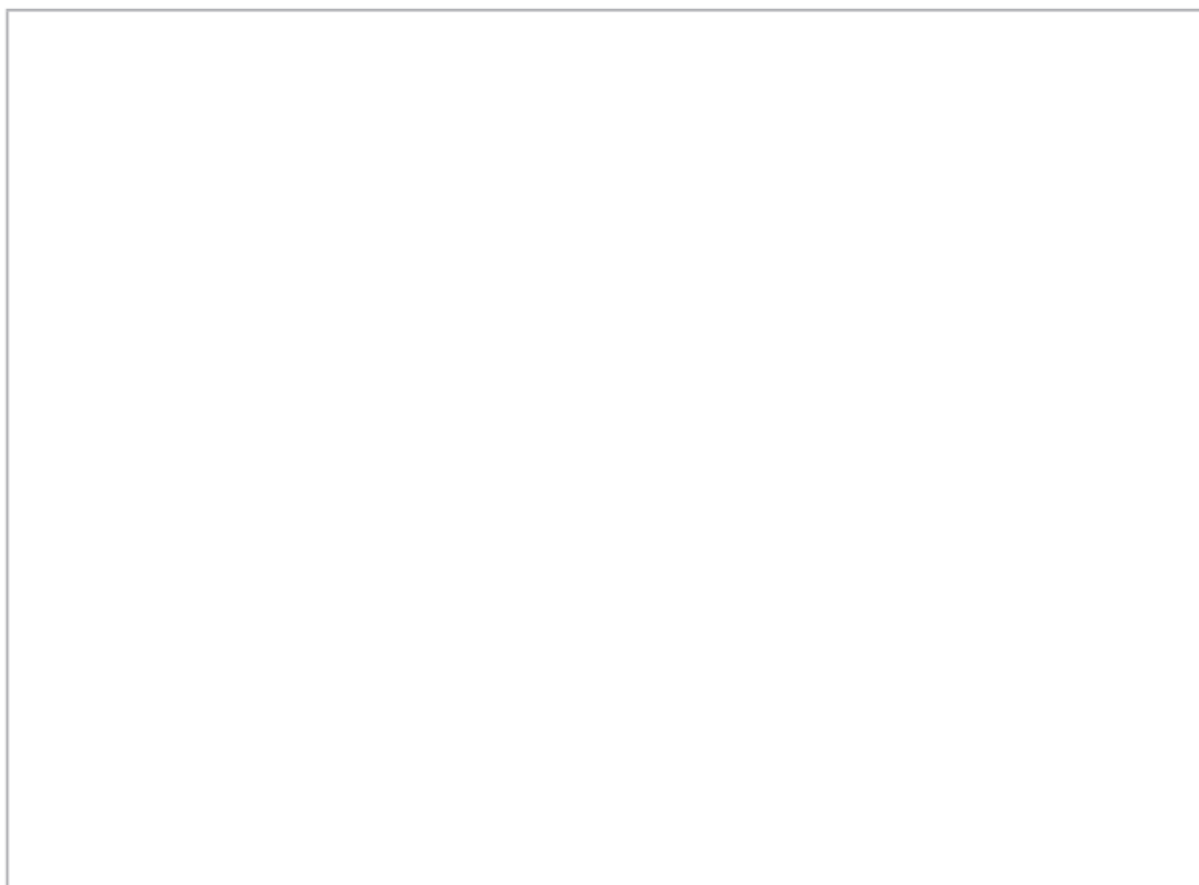| Question	Answer	Mark
1(b)	. **Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS3:** construct and interpret a range of standard graphical forms. **Knowledge** 1 mark for correctly constructing a supply and demand diagram with correctly labelled axes as 'price' and 'quantity' **(1)** **Application** Up to 2 marks for: Showing supply and demand curves with original equilibrium **(1)** Shifting the supply curve to the right **(1)** **Analysis** 1 mark for showing the new equilibrium and its effect on price (decreasing) and quantity (increasing) **(1)** 	
		(4)

(b) Construct a supply and demand diagram to show the impact of increasing farming costs on the Bulgarian food market.
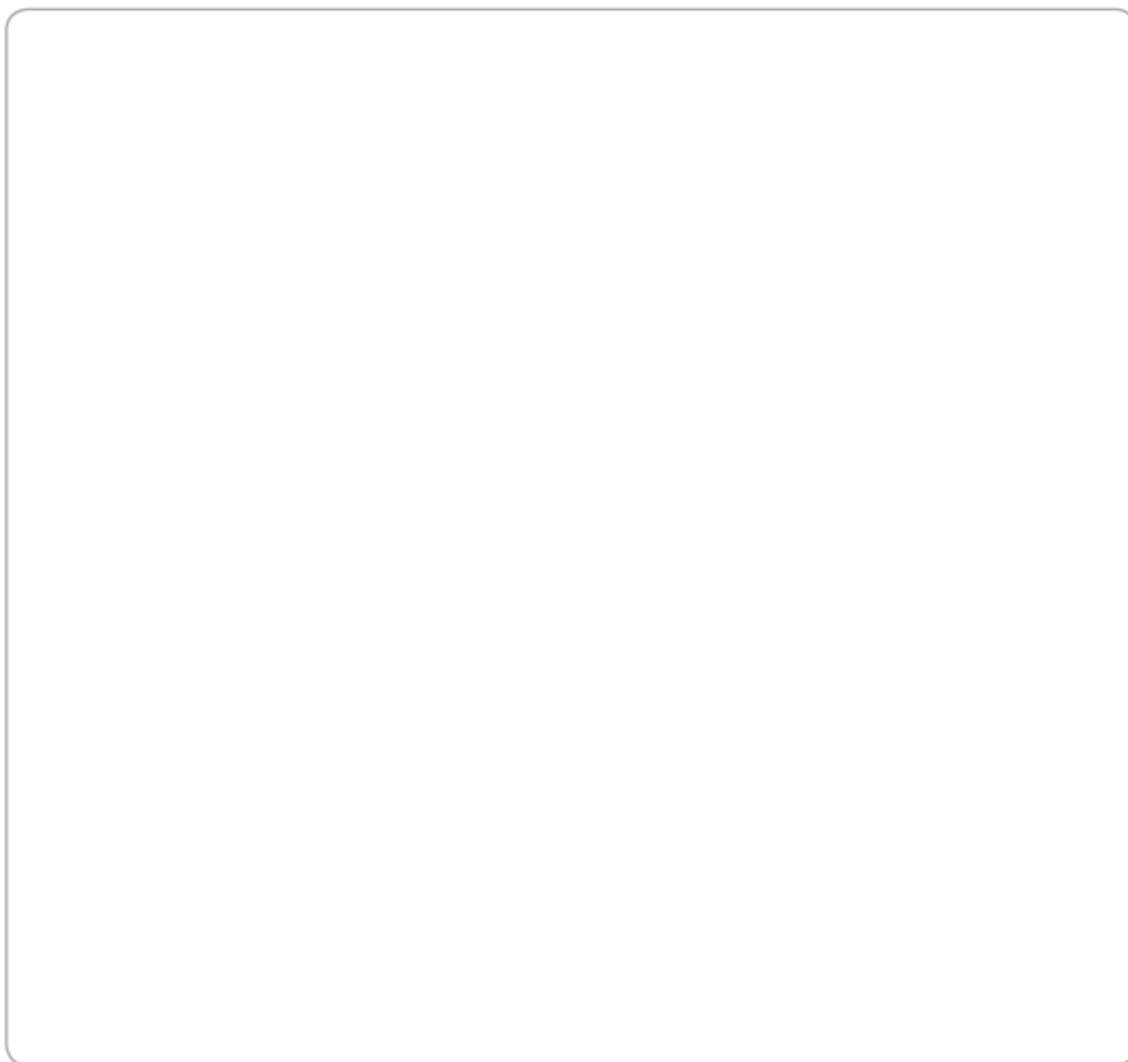
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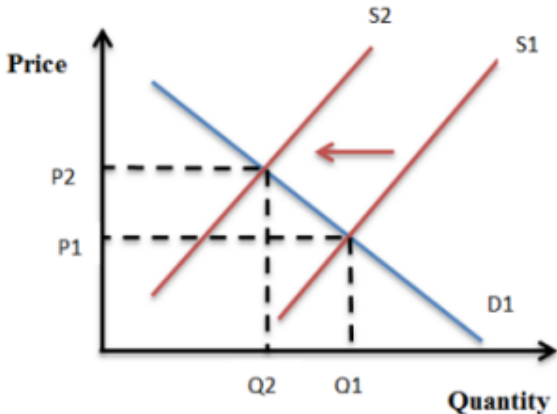| Question	Answer	Mark
1(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS3:** construct and interpret a range of standard graphical forms. **Knowledge** 1 mark for correctly constructing a supply and demand diagram with correctly labelled axes as 'price' and 'quantity' **(1)** **Application** Up to 2 marks for: Showing supply and demand curves with original equilibrium correctly labelled **(1)** Shifting the supply curve to the left **(1)** **Analysis** 1 mark for showing the new equilibrium and its effect on price (increasing) and quantity supplied (decreasing) **(1)** 	**(4)**
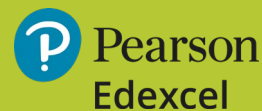
(b) Using Extract A, calculate to one decimal place, the price elasticity of demand for Alaskan seafood. You are advised to show your working.

(4)

Extract A

Chinese tariffs force Alaska seafood industry to look beyond China

The Alaska Seafood Marketing Institute is looking for ways to expand the Alaska seafood brand in response to a 25% tariff on Alaskan seafood imposed by China in summer 2018. China buys $1bn of Alaskan fish annually, making it Alaska's top seafood export market.

The Institute's director says Alaska's seafood sales are down by more than 20% so far in 2019 in response to the price increase caused by the tariff. He says the three-year federal Agricultural Trade Promotion grant of $5.5m awarded in January will be used to develop new markets such as Japan, Southeast Asia and parts of South America. The Institute will continue to work in China and other established markets such as Germany.

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Question Number	Using Extract A, calculate to one decimal place, the price elasticity of demand for Alaskan seafood. You are advised to show your working. Answer	Mark

1(b)	**Knowledge 1, Application 2, Analysis 1**
	
	QS1 Calculate, use and understand ratios, averages and fractions
	
	Knowledge
	1 mark for identifying a suitable formula eg:
	• PED = %change Q
	        %change P **(1)**
	
	Application
	Up to 2 marks for selecting the correct data:
	• = -20% **(1)**
	   25% **(1)**
	
	Analysis
	1 mark for calculating PED
	• = -0.8 **(1)**
	
	NB: All 4 marks for answers that give the correct answer -0.8, regardless of working.	

		(4)

Theme 1.2.4
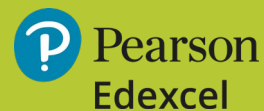
A retailer decreases the price of a *Samsung* television from $800 to $780. Sales of that television increase from 9,000 to 9,450.

(b) Calculate the price elasticity of demand (PED) for the television. You are advised to show your working.

(4)

Question Number	Answer	Mark

1 (b)	**Knowledge 1, Application 2, Analysis 1**
	
	Quantitative skills assessed:
	QS2: calculate, use and understand percentages and percentage changes
	QS7: interpret values of price and income elasticity of demand.
	
	Knowledge
	1 mark for identifying any a suitable formula eg:
	   • % change in quantity demanded / % change in price **(1)**
	
	Application
	Up to 2 marks for calculating the correct data:
	   • 450/9000 x100 = 5% **(1)** -20/800 x100 = -2.5% **(1)**
	
	Analysis
	1 mark for calculating the price elasticity of demand:
	   • 5%/-2.5% = -2 **(1)**
	     NB: if no working is shown award marks as below:
	
	   • If the answer given is -2 award 4 marks
		(4)

Theme 1.2.4
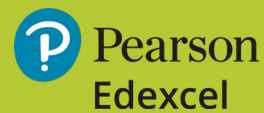
The price elasticity of demand (PED) is estimated to be –1.5 for games consoles.

(b) If *Nintendo* reduces its console prices by 8%, calculate the estimated percentage change in demand. You are advised to show your working.

(4)

Question Number	Answer	Mark
2(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS2:** calculate, use and understand percentages and percentage changes **QS7:** interpret values of price and income elasticity of demand. **Knowledge** 1 mark for identifying a suitable formula, e.g. • PED = % change in quantity demanded / % change in price **(1)**. **Application** Up to 2 marks for selecting the correct data: • -1.5 **(1)** x -8 **(1)**. **Analysis** 1 mark for calculating the percentage change in demand • 12% **(1)**. **NB award marks as below**: If the answer given is 12% award 4 marks. If the answer given is 12 award 3 marks.	**(4)**

Theme 1.2.5
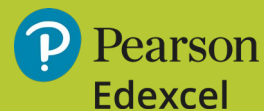
In 2018, incomes in Turkey increased by 6% and *BiSU* sales increased from 100,000 deliveries to 112,000 deliveries a month.

(b) Using this data, calculate the income elasticity of demand for *BiSU*. You are advised to show your working.

(4)

Question Number	Answer	Mark
2(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS2:** calculate, use and understand percentages and percentage changes. **QS7:** interpret values of price and income elasticity of demand. **Knowledge** 1 mark for identifying the formula for YED: • YED = % change in quantity demanded / %change in income **(1)**. **Application** Up to 2 marks for selecting the correct data: • 112,000 – 100,000 / 100,000 x 100 = 12% **(1)** / 6% **(1)**. **Analysis** 1 mark for calculating YED: • 2 **(1)**. **NB: Award 4 marks for answers that give the correct answer regardless of working.**	**(4)**
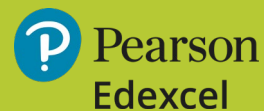
Theme 1.2.5

The income elasticity of demand (YED) in a country for *Coca-Cola* is 0.5.
The average income in the country increases by 5%.

(b) Calculate the percentage change in quantity demanded of *Coca-Cola*.
You are advised to show your working.

(4)

Question	Answer	Mark

1(b)	**Knowledge 1, Application 2, Analysis 1**
	
	Quantitative skills assessed:
	QS2: calculate, use and understand percentages and percentage changes
	QS7: interpret values of price and income elasticity of demand.
	
	Knowledge
	1 mark for identifying a suitable formula e.g.
	• % change in quantity demanded / % change in income **(1)**.
	
	Application
	Up to 2 marks for selecting the correct data:
	    0.5 **(1)** x 5% **(1)**.
	
	Analysis
	1 mark for calculating the change in quantity demanded
	• 2.5% **(1)**.
	
	NB: If no working is shown, award marks as follows:
	
	    • **If the answer given is 2.5% award 4 marks.**
	    • **If the answer given is 2.5 award 3 marks.**
		(4)

(b) Using Extract B, calculate, to two decimal places, the mark-up on an *Impossible Foods* burger. You are advised to show your working.

(4)

Extract B

Cost of making a beef burger versus plant-based *Impossible Foods* burger

Plant-based burgers more costly to produce than beef burgers

Beef burger		Impossible Foods burger
$0.45	bun	$0.45
$0.05	mayo	$0.05
$0.07	tomato	$0.07
$0.03	onion	$0.03
$0.02	mustard	$0.02
$0.14	lettuce	$0.14
$0.02	ketchup	$0.02
$0.81	burger	**$2.86**
$1.59	cost per burger	**$3.64**
$5.99	average selling price	**$9.99**

Question Number	Answer	Mark
1(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS1:** calculate, use and understand ratios, averages and fractions. **Knowledge** 1 mark for knowledge of the formula to calculate mark-up: $\quad$ Mark up = $\dfrac{\text{profit per item}}{\text{cost per item}}$ x 100 $\quad$ **(1)** **Application** Up to 2 marks for correct application of figures to formula: $\dfrac{(\$9.99 - \$3.64)\ \textbf{(1)}}{\$3.64 \qquad \textbf{(1)}}$ x 100 **OR** $\dfrac{\$6.35\ \textbf{(1)}}{\$3.64\ \textbf{(1)}}$ x 100 **Analysis** 1 mark for showing correct answer: 174.45% **(1)** **NB: If no working is shown, award marks as follows:** • If the answer given is 174.45% award 4 marks • If the answer given is 174.45 award 3 marks	**(4)**

Theme 2.2.2

(b) Using the data in Extract A, calculate the average total cost of an item of clothing made by *Lotus Garments Co*. You are advised to show your working.

(4)

Extract A

Lotus Garments Co.

Egyptian business *Lotus Garments Co.* is one of the leading clothing manufacturers in the world. It produces clothing for the biggest names in denim such as *Levi Strauss & Co.* and the Wrangler and Lee brands owned by the *V F Corporation*.

Chairman and CEO Hossam Gabr, previously produced jackets and trousers but   5
entered the denim business in 2002. Today 11,800 skilled employees at the Port Said factory can produce up to 26,000,000 items of clothing a year.

Lotus Garments Co. has recently adopted both just in time (JIT) and total quality management (TQM) in order to keep up with international competition and give the flexibility to meet its customers' needs. The business meets all international standards   10
for quality, production and health and safety.

Although most pairs of jeans are exported to the USA, *Lotus Garments Co.* also supply clothing retailers in Egypt. It is planning to do two things. Firstly, to increase its sales in Egypt and secondly to reduce its annual total costs of $420m.

By working closely with local suppliers *Lotus Garments Co.* believes it can continue to   15
meet the needs of its customers for many years to come.

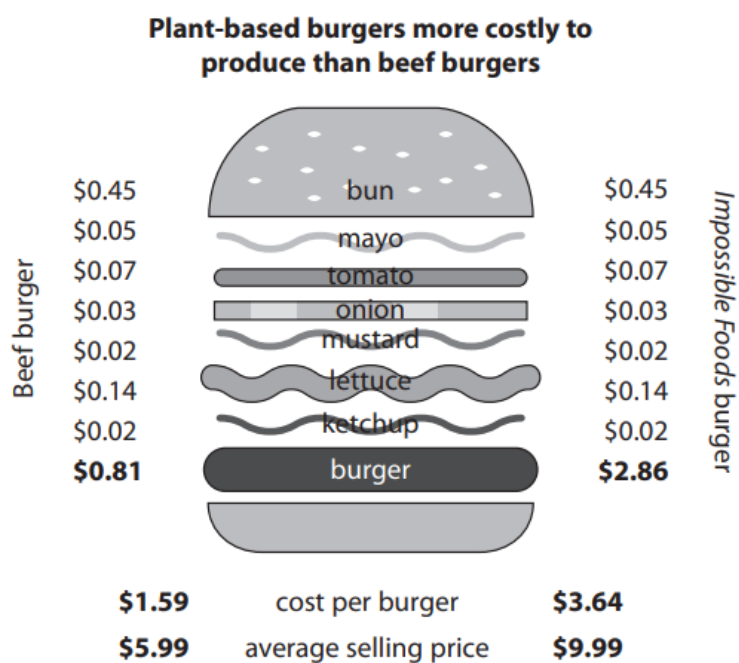| Question	Answer	Mark
1(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS5:** Calculate cost, revenue, profit and break-even **Knowledge** 1 mark for identifying the formula: $$\bullet \quad \frac{\text{Total costs}}{\text{Number of goods produced}} = \textbf{(1)}$$ **Application** Up to 2 marks for selecting the correct data from Extract A: $$\text{Average total cost} = \frac{\$420\ 000\ 000 \quad \textbf{(1)}}{26\ 000\ 000 \quad \textbf{(1)}}$$ **Analysis** 1 mark for calculating the average total cost: • Average total cost = $16.15 **(1)** **NB: If no working is shown, award marks as follows:** • If the answer given is $16.15 award 4 marks • If the answer given is 16.15 award 3 marks	(4)
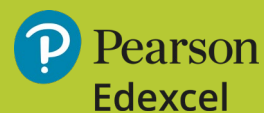
Theme 2.2.2

(b) Using Extracts B and E, calculate, to two decimal places, the percentage of total sales revenue that came from Europe in 2017. You are advised to show your working.

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Extract B

Kellogg's **in 2017**

Sales Revenue ($m) per region

967
955
2 291
8 710

Asia Pacific
Latin America
Europe
North America

Main Products by sector (%)

8%
42%
50%

Cereals
Snacks
Other

Question Number	Answer	Mark
1 (b)	**Knowledge 1, Application 2, Analysis 1** **Quantitative skills assessed:** **QS2:** calculate, use and understand percentages and percentage changes. **Knowledge** 1 mark for knowledge and understanding of how to calculate a percentage: $\dfrac{\text{Revenue of Europe}}{\text{Total Revenue}}$ x 100 **(1)** **Application** Up to 2 marks for correct application of figures to formula: $\dfrac{\$2\,291m\ \textbf{(1)}}{\$12\,923m\ \textbf{(1)}}$ x 100 **Analysis** 1 mark for showing correct answer: 17.73% (to 2 decimal places) **(1)**. **NB: if no working is shown award marks as below:** • If the answer is 17.73% award 4 marks • If the answer is 17.73 award 3 marks	**(4)**

Theme 2.2.2
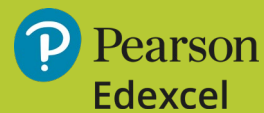
(b) Using Extract C, calculate to 2 decimal places, the percentage change in sales revenue for *Skechers* between 2016 and 2017. You are advised to show your working.

(4)

Extract C

About *Skechers*

Skechers is a global footwear company that designs and develops shoes for men, women and children. It sells its products online and in more than 2,700 shops in 170 countries through its established distribution channels. The annual sales revenue of the business increased from $3.52bn in 2016 to $4.16bn in 2017.   5

Skechers marketing department uses both primary and secondary market research. Focus groups and interviews are used during the design stage to collect opinions on new shoes before they are launched onto the market. Focus groups are also used to gain feedback on the performance and comfort of existing styles of shoes. Since 1992 when it launched its first shoe, the company has diversified into several new lines, targeting different   10 market segments and different activities.

The range is updated regularly and includes shoes for walking, work and casual wear. The portfolio includes 3,000 different styles of footwear for all ages that offer quality and comfort. Its best-selling shoe is the Go-Walk brand, sold globally. More recently the company has designed and sold shoes for athletes and is now competing with   15 companies such as *Nike* and *Adidas*.

Organisation of *Skechers*

Although *Skechers* has offices and shops globally it has maintained a centralised organisational structure. At the corporate headquarters in California, USA, *Skechers* research, design, and develop the shoes as well as controlling global marketing   20 campaigns and operations. Offices based in South America, Europe and Asia oversee the regional operations.

David Weinberg is the Chief Operating Officer (COO) based in the USA head office. He is responsible for the day-to-day operations. These include planning *Skechers* policies and objectives and developing financial and distribution strategies to expand the business.   25

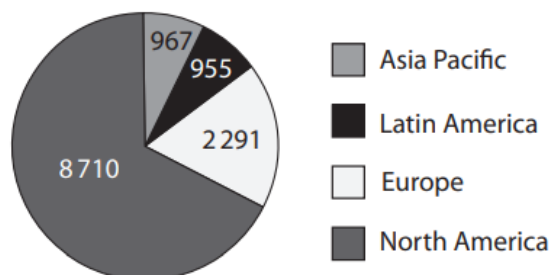| Question	Answer	Mark
2(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: QS2 Calculate, use and understand percentages and percentage change **Knowledge** 1 mark for identifying a suitable formula for percentage change: • Difference in revenue / original revenue x 100 **(1)** **Application** Up to 2 marks for: selecting the correct data • 4.16-3.52 or 0.64 **(1)** / 3.52 x 100 **(1)** **Analysis** 1 mark for calculating the percentage change • 18.18% **(1)** **NB if no working is shown award marks as below**: If the answer given is 18.18% award 4 marks. If the answer given is 18.18 award 3 marks.	**(4)**

(b) Using the data in Extract C, calculate the monthly sales revenue of the *Lava* Z91 smartphone. You are advised to show your working.

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Extract C

***Lava,* the Indian smartphone manufacturer, launches new Z91 smartphone**

Lava has launched the Z91, another smartphone in its Z series. The *Lava* Z91 is priced at $154 in Zambia and comes with a two-year warranty.

The smartphone has a large screen display and a fingerprint reader. This feature allows users to create shortcuts to open apps by using fingerprint recognition. The dual-SIM smartphone *Lava* Z91 also comes with a facial recognition feature that can unlock the device by scanning the face of the user.

5

Lava is forecasting monthly sales of 2,750 of its Z91 smartphones during the first year it is available in Zambia. This is based on market research into the preferences of 1,000 smartphone users in Zambia.

10

Question Number	Answer	Mark
2(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS5:** Calculate cost, revenue, profit and break-even. **Knowledge** 1 mark for identifying the sales revenue formula: • Selling price x Quantity sold **(1)** **Application** Up to 2 marks for selecting the correct data from Extract C: • Sales revenue = \$154 **(1)** x 2,750 **(1)** **Analysis** 1 mark for calculating the sales revenue: • Sales revenue = \$423 500 **(1)** **NB: If no working is shown, award marks as follows:** **If the answer given is \$423 500 award 4 marks** **If the answer given is 423 500 award 3 marks**	**(4)**

(b) Using the data in Extract A, explain **one** way the change in the contribution of a vegan roll may affect *Greggs'* break-even point.

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Extract A

Vegan* roll success boosts *Greggs'* profit outlook

Greggs is the largest chain of bakeries in the UK. Products are sold through its own shops that specialise in selling savoury products. *Greggs* successfully launched its new vegan roll at the start of 2019. This success caused management to increase *Greggs'* profit expectations for the year. The budgeted income in January 2019 was £85 000m but actual income was £97 870m. *Greggs* said it had experienced an 'exceptionally strong start' to the year resulting from the launch of the vegan roll. 5

The company took 12 to 18 months developing the vegan rolls that are priced at £1.00 each. The variable cost for the product has fallen from £0.27 to £0.26. *Greggs* said that the 'extensive publicity' surrounding the launch has resulted in its improved trading. While the demand for vegan rolls continues to rise, sales of other *Greggs* products increased by 14.1%. 10

Vegan rolls are now sold in 1,492 *Greggs* shops and soon the rolls will be sold in all its 1,950 shops. Catering for vegan diets is now a rising priority for many food retailers.

Greggs' overall rate of sales growth slowed down in February 2019, but continued to be high in relation to February 2018. *Greggs* said the strength of sales to date was likely to have an impact on its statement of comprehensive income. This is especially true because sales fell as a result of poor weather during the same period in 2018. 15

* vegan: consumers who do not eat any animal-based products; only plant-based products

Question Number	Answer	Mark
1(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS5**: Calculate cost, revenue, profit and break-even **Knowledge** 1 mark for identifying a way, e.g. • The break-even point may decrease **(1)** **Application** Up to 2 marks for contextualised answers, e.g. • At the higher variable cost, contribution was £1.00 - £0.27 = £0.73 **(1)** • At the new variable cost of £0.26, a vegan roll contributes £0.74 **(1)** **Analysis** 1 mark for developing the impact, e.g. • As each vegan roll contributes a high proportion of the selling price towards paying off the fixed costs, a lower quantity of sales will be needed in order to break-even **(1)**	**(4)**
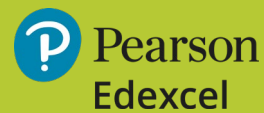
Tharindu sells his T-shirts for 2 000LKR.

(b) Using the data in Extract A, calculate the break-even point for Tharindu's business. You are advised to show your working.

(4)

Extract A

Anyone for cricket?

Tharindu Jayantha spends most days working for his parents at the family-owned grocery shop in Kandy, Sri Lanka. However, when there is an international cricket match in the country, the 24 year old packs a suitcase and becomes his own boss.

"When I was young, I used to make a few rupees by painting flags on the faces of cricket   5
supporters outside the stadium," said Tharindu, "but when I saw how much international cricket supporters would pay for a souvenir T-shirt, I knew I should change what I was selling."

In 2011, Sri Lanka hosted the Cricket World Cup and several matches were played at the Pallekele stadium near Kandy. This was followed in 2012 by another international cricket   10
tournament, the World Twenty20. With the opportunity to put his ideas into practice so close to home, Tharindu was able to make enough profit to allow him to buy more T-shirts and travel to other stadiums in Sri Lanka whenever international cricket teams visited.

"Although most of the time matches are only for one day, my expenses are just a sales   15
pitch permit, transport and accommodation, totalling 5 400 Sri Lankan rupees (LKR). I also pay 650LKR to buy each T-shirt but I have always been able to sell everything," Tharindu continued. "It can be a problem to carry the T-shirts by myself on the train or bus, especially when there are delays and I have to change transport. I have considered paying someone to help me or even buying my own car but there is a lot of competition   20
so I need to do some sales forecasting before making any decisions."

Question	Answer	Mark
1(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS5:** Calculate cost, revenue, profit and break-even **Knowledge** 1 mark for identifying the break-even formula: $\bullet$ $\dfrac{\text{Fixed costs}}{\text{selling price - variable costs per unit}}$ **(1)** **Application** Up to 2 marks for selecting the correct data from Extract A: Break-even = $\dfrac{5\ 400\quad \textbf{(1)}}{2\ 000 - 650\quad \textbf{(1)}}$ **OR** $\dfrac{5\ 400\quad \textbf{(1)}}{1\ 350\quad \textbf{(1)}}$ **Analysis** 1 mark for calculating the break-even point: $\bullet$ Break-even point = 4 T-shirts **(1)** **NB: If no working is shown, award marks as follows:** $\bullet$ If the answer given is 4 T-shirts/units/items, award 4 marks $\bullet$ If the answer given is 4, award 3 marks $\bullet$ If the answer given is 4LKR, award 3 marks	**(4)**

(b) Using the data in Extract C, calculate to two decimal places, the operating profit margin for *Soul Boul* in 2018. You are advised to show your working.

(4)

In 2018, *Soul Boul's* revenue totalled NZ$104 625 from selling smoothie bowls at NZ$12.50 each. By keeping costs to a minimum, operating profit was NZ$32 175.

Question	Answer	Mark
2(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS1:** Calculate, use and understand ratios, averages and fractions. **Knowledge** 1 mark for identifying the operating profit formula: • $\dfrac{\text{operating profit}}{\text{revenue}} \times 100$ **(1)** **Application** Up to 2 marks for selecting the correct data from Extract C: • $\dfrac{\text{NZ\$32 175} \ \textbf{(1)}}{\text{NZ\$104 625} \ \textbf{(1)}} \times 100$ **Analysis** 1 mark for calculating the operating profit margin: • Operating profit margin = 30.75% **(1)** **NB: If no working is shown, award marks as follows:** • If the answer given is 30.75% award 4 marks • If the answer given is 30.75 award 3 marks	(4)

(b) Using the data in Extract C, calculate the profit for the year (net profit) for *Hostelworld* in 2018. You are advised to show your working.

(4)

Extract C

Hostelworld reports dip in revenue and operating profit

Hostelworld is an Irish company that provides an online booking platform for cheap accommodation worldwide. It operates in a market that is described as being 'highly competitive'. In 2018, it reported a decrease in revenue and profit. However, this decrease is similar to many of its competitors and it is optimistic about its future due to favourable market conditions and overall growth in the market.   5

Hostelworld said revenue fell by 5% to €82.1m and operating profit fell to €6.7m in 2018, down from €11.9m the previous year. Finance costs (interest payments) remained constant at €0.6m. However, Chief Executive, Gary Morrison said, "We have a well known brand that is trusted by loyal customers. Our objective is to return to growth in 2020".   10

Hostelworld enables travellers to make bookings on its website or its app. It reported a 22% increase in bookings from the app, which accounted for 40% of all bookings in 2018. This shows the introduction of the app was a worthwhile cost to the business. "To encourage customers to use _Hostelworld_ we have to adapt to suit their busy lifestyles. Having an option of how to book offers customers convenience and flexibility," continued   15
Mr. Morrison.

In 2018, _Hostelworld_ said it was proposing to pay a dividend to shareholders of €0.138 per share and intends to use share capital to help fund its growth strategy. The strategy will take advantage of growth in the market and focus on increasing market share for _Hostelworld_. This will be through investment in advanced technology, increased   20
awareness of customer needs, refocused marketing activities and a strengthened management team.

Question Number	Answer	Mark
2(b)	**Knowledge 1, Application 2, Analysis 1**	
	Quantitative skills assessed: **QS5:** Calculate cost, revenue, profit and break-even.	
	Knowledge 1 mark for identifying the profit for the year (net profit) formula: • operating profit – finance costs (interest) **(1)**	
	Application Up to 2 marks for selecting the correct data from Extract C: • €6.7m **(1)** - €0.6m **(1)**	
	Analysis 1 mark for calculating the profit for year (net profit): • Profit for the year (net profit) = €6.1m **(1)**	
	NB: If no working is shown, award marks as follows: • If the answer given is €6.1m award 4 marks • If the answer given is 6.1m award 3 marks	
		(4)

(e) Using Extract E, assess the financial performance of *Kellogg's* in 2017.

(12)

Extract E

***Kellogg's* statement of comprehensive income for the year ending 31st December 2017**

	2017 ($m)
Revenue	12 923
Cost of sales	7 901
Gross profit	5 022
Other operating expenses	3 076
Operating profit	1 946
Finance costs	272
Profit on ordinary activities before taxation	1 674
Tax on profit on ordinary activities	405
Profit for the financial year	1 269

Quantitative skills assessed
QS1: calculate, use and understand ratios, averages and fractions
QS2: calculate, use and understand percentages and percentage changes
QS9: interpret, apply and analyse information in written, graphical and numerical forms.

Knowledge, Application, Analysis, Evaluation – indicative content
- Gross profit margin: 5 022/12 923 x 100 = 38.86%
- Operating profit margin: 1 946/12 923 x 100 = 15.06%
- Profit for the financial year margin: 1 269/12 923 x 100 = 9.82%
- These ratio results indicate that *Kellogg's* had a successful financial year in 2017
- Extract A states that it has 3 main strategies including being the best for breakfast and to be a global provider of snacks and these figures help to support these aims
- These results would enable *Kellogg's* to pursue its strategy of funding new acquisitions and launching new products outlined in Extract A
- However, these are just for one year and historical data is needed to look at the long-term development/trends of *Kellogg's* to see if there have been any changes or improvements since 2016
- To gain a fuller financial picture, the statement of financial position would have also been useful to determine *Kellogg's* liquidity and ROCE
- It would be useful to compare these figures with other rivals, such as *Nestle*, to see if they have had a similar financial performance in 2017
- Both qualitative and quantitate information is needed if a true financial assessment is to be made of *Kellogg's* in terms of its financial performance

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–2	Isolated elements of knowledge and understanding – recall based. Weak or no relevant application to business examples. Generic assertions may be presented.
Level 2	3–4	Elements of knowledge and understanding, which are applied to the business example. Chains of reasoning are presented, but may be assertions or incomplete. A generic or superficial assessment is presented.
Level 3	5–8	Accurate and thorough knowledge and understanding, supported throughout by relevant and effective use of the business behaviour/context. Analytical perspectives are presented, with developed chains of reasoning, showing cause(s) and/or effect(s). An attempt at an assessment is presented, using quantitative and/or qualitative information though unlikely to show the significance of competing arguments.
Level 4	9–12	Accurate and thorough knowledge and understanding, supported throughout by relevant and effective use of the business behaviour/context. A coherent and logical chain of reasoning, showing cause(s) and/or effect(s). Assessment is balanced, wide ranging and well contextualised, using quantitative and/or qualitative information and shows an awareness of competing arguments/factors leading to a supported judgement.

Theme 2.3.1

1 (a) Using Extract A, calculate, to 2 decimal places, the gross profit margin for *Burberry* in the year to March 2018. You are advised to show your working.

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Extract A

Selected figures from *Burberry*'s Statement of Comprehensive Income, 31 March 2018

	£m
Revenue	2 732.8
Cost of sales	835.4
Gross profit	1 897.4
Net operating expenses	1 487.1
Operating profit	410.3

Question	Answer	Mark
1(a)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS1:** calculate, use and understand ratios, averages and fractions. **Knowledge** 1 mark for knowledge and understanding of how to calculate gross profit margin: $\dfrac{\text{Gross Profit}}{\text{Revenue}}$ x 100 **(1)** **Application** Up to 2 marks for correct application of figures to formula: $\dfrac{£1\ 897.4m\ \textbf{(1)}}{£2\ 732.8m\ \textbf{(1)}}$ x 100 **Analysis** 1 mark for showing correct answer: 69.43% (to 2 decimal places) **(1)**. **NB: If no working is shown, award marks as follows:** • If the answer given is 69.43% award 4 marks • If the answer given is 69.43 award 3 marks	(4)

(b) Using the data in Extract D, calculate, to two decimal places, the acid test ratio for *Jetty Service Centre* in 2019. You are advised to show your working.

(4)

Extract D

Selected financial data from *Jetty Service Centre*'s statement of financial position in 2019

	$
Intangible assets	145 200
Inventories	31 500
Cash	47 900
Current liabilities	18 000
Loans	23 700

Question	Answer	Mark
2(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS1**: Calculate, use and understand ratios, averages and fractions **Knowledge** 1 mark for identifying the formula for acid test ratio: • $\dfrac{\text{Current assets - inventories}}{\text{current liabilities}}$ **(1)** **Application** Up to 2 marks for selecting the correct data from Extract D: • $\dfrac{(47\ 900 + 31\ 500) - 31\ 500}{18\ 000}$ **(1)** **(1)** **Analysis** 1 mark for calculating the acid test ratio: • = 2.66 **(1)** **NB: If no working is shown, award marks as follows:** • If the answer given is 2.66 award 4 marks	**(4)**

Theme 2.4.2

(b) Using the data in Extract B, calculate the capacity utilisation for *George's Tavern* at lunchtime in September. You are advised to show your working.

(4)

Extract B

Traditional restaurant with a difference

George's Tavern is located in an old house, in the pretty and traditional village of
Yeroskipou in Cyprus. The village is only 5 km away from the coastal city of Paphos, which
is popular with tourists. The restaurant serves Mediterranean and Greek food. It is unique
because there is no menu, instead it serves a set selection of food prepared with locally
grown and seasonal ingredients.

5

The small portions of different food only include what is in season, so you might get
hand-picked asparagus, wild mushrooms with fresh herbs, aubergines and potatoes
in tomato, or tender *kleftiko* (oven-baked lamb) from local farmers. Even the drinks are
home-made, using ingredients from the family's vegetable garden.

10

Evening diners must reserve a table, due to high demand. At lunchtime it is often
much quieter. For example, in September *George's Tavern* could have catered for 1,500
lunchtime customers but only served 1,110. Once seated, diners can then stay for the
whole afternoon (noon until three o'clock) or evening (seven until eleven o'clock), as
dishes are served until diners can eat no more.

15

The restaurant is open Tuesdays to Saturdays and charges a fixed price of €25 per
person for all food served during the sitting. Damien and Benedict are the sons of the
founder, George. They now run the restaurant and are eager to make sure *George's Tavern*
continues to follow the original business plan and be successful.

Question	Answer	Mark
2(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS2:** Calculate, use and understand percentages and percentage changes. **Knowledge** 1 mark for identifying the capacity utilisation formula: • $\dfrac{\text{Current output}}{\text{Maximum possible output}} \times 100$ **(1)** **Application** Up to 2 marks for selecting the correct data from Extract B: • $\dfrac{1{,}110\ \textbf{(1)}}{1{,}500\ \textbf{(1)}} \times 100$ **Analysis** 1 mark for calculating the capacity utilisation: • Capacity utilisation = 74% **(1)** **NB: If no working is shown, award marks as follows:** • If the answer given is 74% award 4 marks • If the answer given is 74 award 3 marks	**(4)**
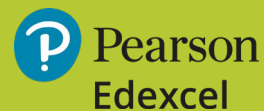
(b) Using the data in Extract B, calculate, to two decimal places, the percentage change in the rate of UK unemployment from January 2015 to January 2020. You are advised to show your working.

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Extract B

UK percentage rate of unemployment January 2015 – January 2020

| Question	Answer	Mark
1(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS2**: Calculate, use and understand percentages and percentage changes **Knowledge** 1 mark for identifying the formula for percentage change: • Change/Original x 100 **(1)** **Application** Up to 2 marks for selecting the correct data from Extract B: • 3.9 - 5.7 **OR** -1.8 **(1)** / 5.7 **(1)** x 100 **Analysis** 1 mark for calculating the percentage change: • = -31.58% **(1)** **NB: If no working is shown, award marks as follows:** • If the answer given is -31.58% award 4 marks • If the answer given is -31.58 award 3 marks	**(4)**
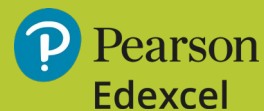
Theme 3.3.2

(b) Using Extract B, calculate the simple payback period for an *Airbus* A350-1000 aircraft. You are advised to show your working.

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Extract B

Selected data for an *Airbus* A350-1000 aircraft

Purchase price	$366m
Average length of service	27 years
Average yearly net cash flow	$30.5m
Average number of seats	380

Question	Answer	Mark
1(b)	**Knowledge 1, Application 2, Analysis 1** Quantitative skills assessed: **QS6:** Calculate investment appraisal outcomes and interpret results. **Knowledge** 1 mark for knowledge and understanding of the simple payback formula: $\qquad$ Simple payback = $\dfrac{\text{cost of initial investment}}{\text{average yearly net cash flow}}$ **(1)** **Application** Up to 2 marks for correct application of figures to formula: $366m **(1)** $30.5m **(1)** **Analysis** 1 mark for showing correct answer: 12 years **(1)**. **NB: If no working is shown, award marks as follows:** • If the answer given is 12 years award 4 marks • If the answer given is 12 award 3 marks	**(4)**

Theme 3.5.2

(b) Using Extract C, calculate, to two decimal places, the return on capital employed (ROCE) for *Dunelm*. You are advised to show your working.

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Extract C

Selected financial data for *Dunelm* ending June 2019

	(£m)
Revenue	1 100.4
Operating profit	126.9
Non-current liabilities	81.5
Total equity	185.8

Question Number	Answer	Mark
1(b)	**Knowledge 1, Application 2, Analysis 1** **Quantitative skills assessed:** **QS1:** calculate, use and understand ratios, averages and fractions. **Knowledge** 1 mark for knowledge and understanding of how to calculate ROCE: $$\frac{\text{Operating profit}}{\text{Non-current liabilities + Total equity}} \times 100 \ (1)$$ **Application** Up to 2 marks for correct application of figures to formula: $$\frac{126.9 \ (1)}{267.3 \ (1)} \times 100$$ **Analysis** 1 mark for showing correct answer: 47.47% **(1)** **NB: If no working is shown, award marks as follows:** • If the answer given is 47.47% award 4 marks • If the answer given is 47.47 award 3 marks	**(4)**

(b) Using the data in Extract C, calculate to two decimal places, the average annual rate of GDP growth for Vietnam between 2015 and 2019. You are advised to show your working.

(4)

Extract C

Vietnam's GDP growth rate % per year

Year	Rate (%)
2015	6.7%
2016	6.2%
2017	6.8%
2018*	7.1%
2019*	6.8%

*2018 and 2019 are forecasts. Source: Asian Development Bank. *Asian Development Outlook (ADO) 2018*

Question Number	Answer	Mark

1 (b)	**Knowledge 1, Application 2, Analysis 1**
	
	Quantitative skills assessed:
	QS1: calculate, use and understand ratios, averages and fractions.
	
	Knowledge
	1 mark for identifying any suitable formula eg:
	    • Aggregate of yearly growth rates ÷ number of years **(1)**
	
	Application
	Up to 2 marks for selecting the correct data:
	    • 6.7 + 6.2 + 6.8 + 7.1 + 6.8 **(1)** ÷ 5 **(1)**
	
	Analysis
	1 mark for calculating the average annual growth rate:
	    • = 6.72% **(1)**
	
	NB: if no working is shown award marks as below:
	    • If the answer is 6.72% award 4 marks
	    • If the answer is 6.72 award 3 marks
		(4)