

Knockout.Economics by Kru P'Eve & Kru P'Da

IGCSE -Business studies

The meaning of production



- Executive summary IGCSE Business studies
- Series of exam questions each chapter
- Exam Strategies and exclusive tips to achieve A* from Knockout.Economics
- Exclusive Key Terms for IGCSE Business studies exam



Overviews

1. Difference between production and productivity
2. Benefits of increasing efficiency and how to increase it
3. Why businesses hold inventories
4. The concept of lean production
5. Benefits of lean production



1. Difference between production and productivity

Production

: the process transforms input into goods and services (output)



Productivity

: is the output per an input per period of time. It also measures efficiency.

$$Productivity = \frac{Output}{Input}$$

	Company A	Company B
Number of workers	5	10
Total Output (Units)	500	2500
Productivity		

2. Benefits of increasing efficiency and how to increase it

Efficiency : the condition that reduces cost of production

Benefits of increasing efficiency/ productivity

1. Input can generate *more outputs*.
2. *Cost per unit is lower*.
3. Fewer workers may be needed in the production, resulting in *lower labour cost*.
4. Workers may get *higher wages* as they can contribute to more outputs.

Methods to improve productivity

1. *Increasing wages* to motivate worker
2. Introducing *new technology*
3. Using *machines* in the production
4. *Training staff* to be more efficient
5. *Improving the layout of the machines* in the factory to reduce wasted time and therefore increase efficiency.

3. Why businesses hold inventories

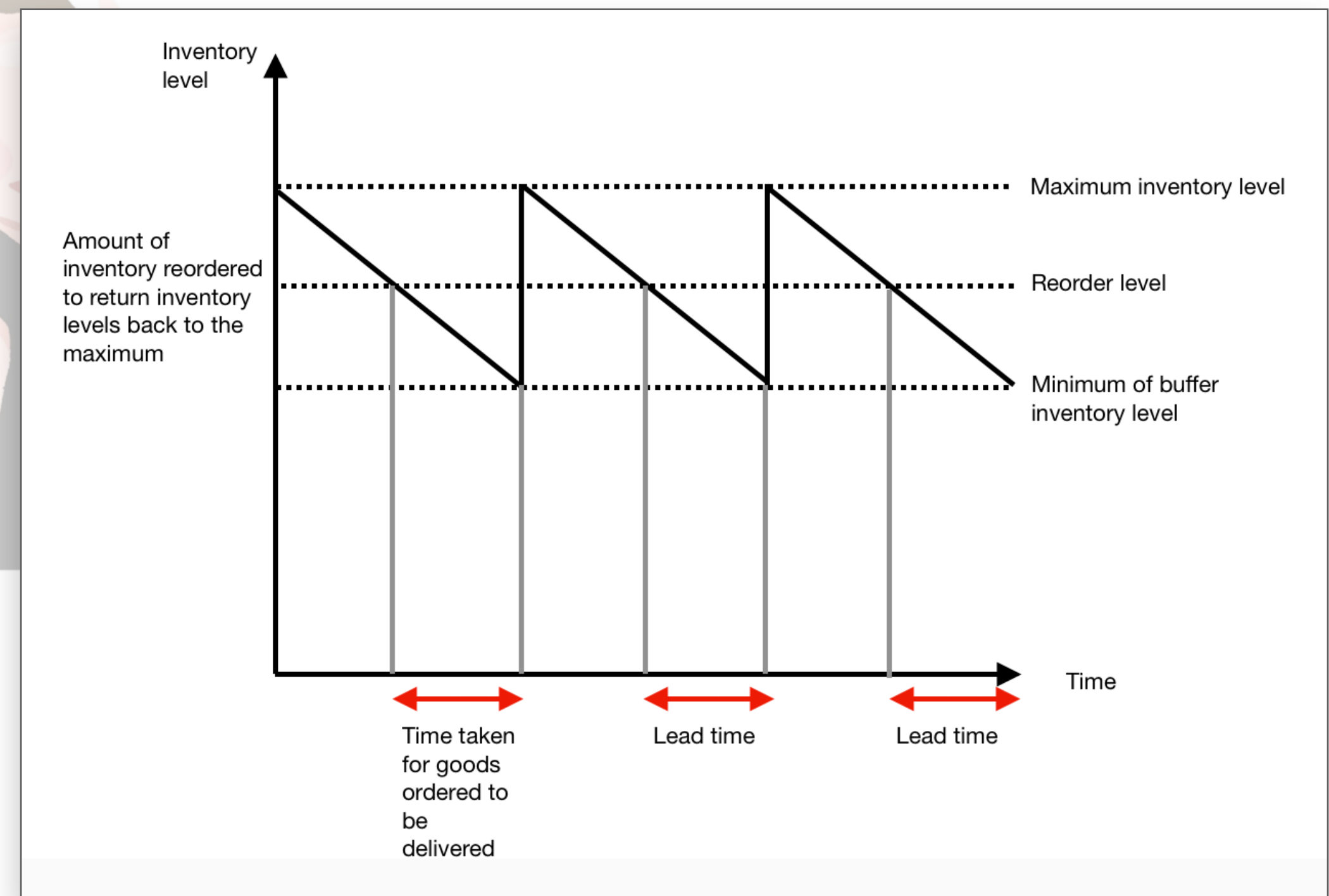
Why does a business hold inventories (Stock); Business needs to ensure that there is enough inventory to satisfy customers' demand.

The forms of inventory includes raw materials, components and finished goods.

The buffer inventory level : is the inventory held to deal with uncertainty in customer demand and deliveries of supplies.

If inventory level is too high \Rightarrow high storage cost and high cost of product waste. The money can be spent on better use.

If inventory level is too low \Rightarrow there is not enough products for customers.



4. The concept of lean production

Lean production: is a term for those techniques used by businesses to cut down on waste and therefore increase efficiency.

7 types of waste in production

7 Wastes of Lean



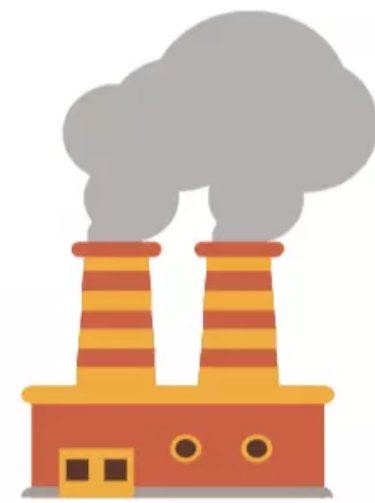
Inventory



Waiting



Defects



Overproduction



Motion



Transportation



Over-processing

Reference: kanbanize.com

1. **Overproduction** - this results in high storage cost and damaged goods.
2. **Waiting** - when goods are not processing.
3. **Transportation** - moving goods around unnecessarily
4. **Unnecessary inventory** - holding too much inventories has storage cost and it takes up space.
5. **Motion** - moving machines and workers unnecessarily.
6. **Over-processing** - using a complex machine to do simple tasks is wasteful.
7. **Defects** - defect products take time to fix and inspect

4. The concept of lean production

Methods of lean	1. Kaizen	2. Just in time	3. Cell production
Meaning	Continuous improvement and focusing on to eliminate waste from <u>ideas of workers</u> who discuss together (not from technology).	is a production method that involves in <u>reducing the need to hold inventory or raw materials.</u>	is where the <u>production line is separated into self-contained unit(cell)</u> each cell makes a part of finished goods in stead of using flow production.
Example	<ul style="list-style-type: none"> Organising the flow of production to reduce time for workers to walk 	<ul style="list-style-type: none"> The products are made just in time ordered by customers. The raw materials are delivered just in time to be produced. 	<ul style="list-style-type: none"> It supports a smooth flow of materials and components with minimal transport.
Advantages	<ul style="list-style-type: none"> Increasing productivity. Reducing space for the production process. Reducing work-in-progress. Improving the layout of the factory. 	<ul style="list-style-type: none"> Reducing inventory cost and storage cost Requiring smaller warehouse space Improving cash flow by selling the finished product quickly 	<ul style="list-style-type: none"> Employees feel more important to business as they contributes finished goods.

5. Benefits of lean production

1. **Low storage cost** of inventories and raw materials
2. **Faster production** of goods and services.
3. **Reducing chance of customer dissatisfaction** from defects
4. **Better use of equipment**
5. **Speed up production** by cutting unnecessary processes
6. **Less money tied up in inventories** and raw materials
7. **Reducing chance for workers to get injure** during work



Knockout Economics



Line :@ Knockout.Economics



FB Page : Knockout.Economics



IG : Knockout.Economics



Youtube : Knockout.Economics

Knockout.Economics by Kru P'Eve & Kru P'Da

IGCSE -Business studies

The main methods of production

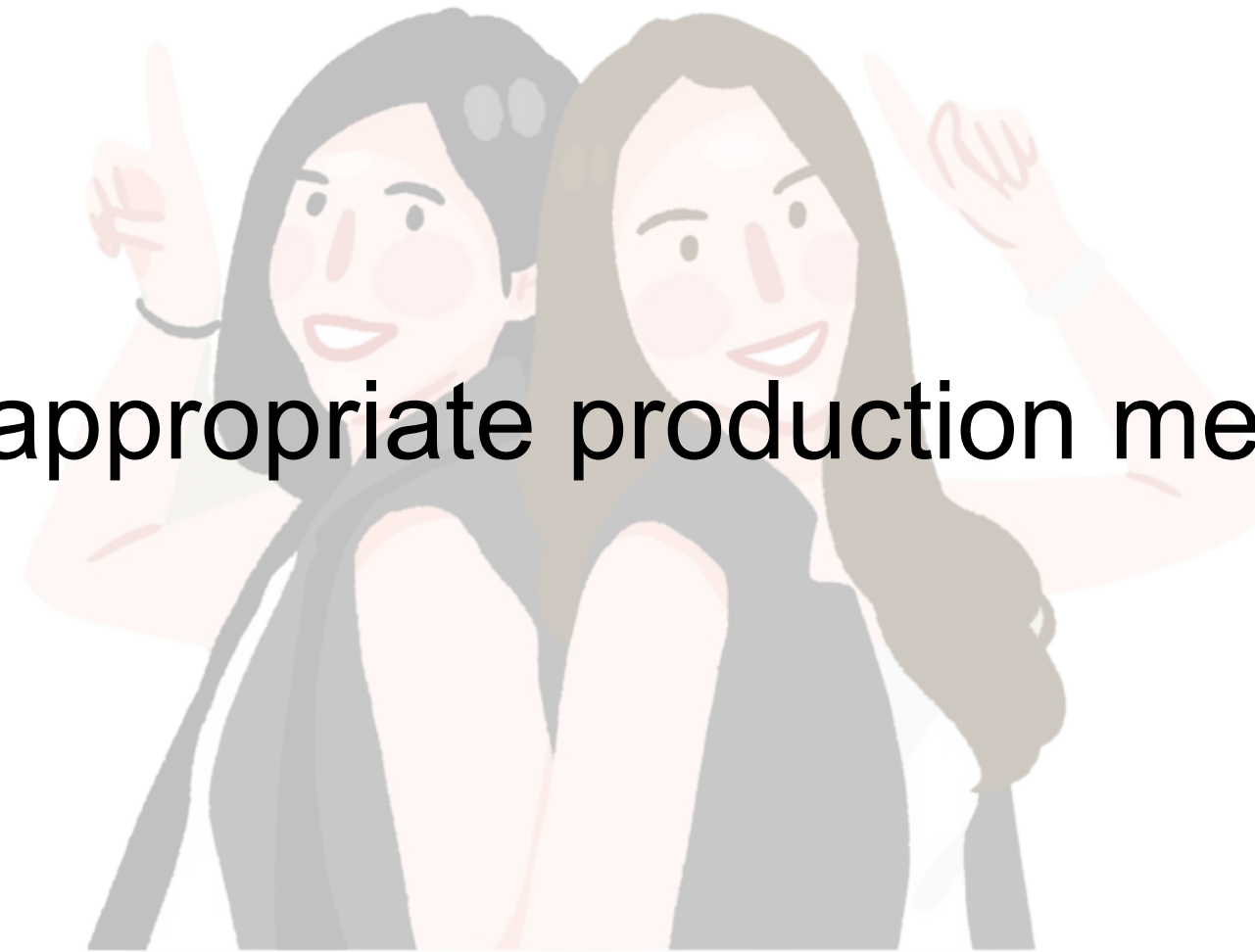


- Executive summary IGCSE Business studies
- Series of exam questions each chapter
- Exam Strategies and exclusive tips to achieve A* from Knockout.Economics
- Exclusive Key Terms for IGCSE Business studies exam


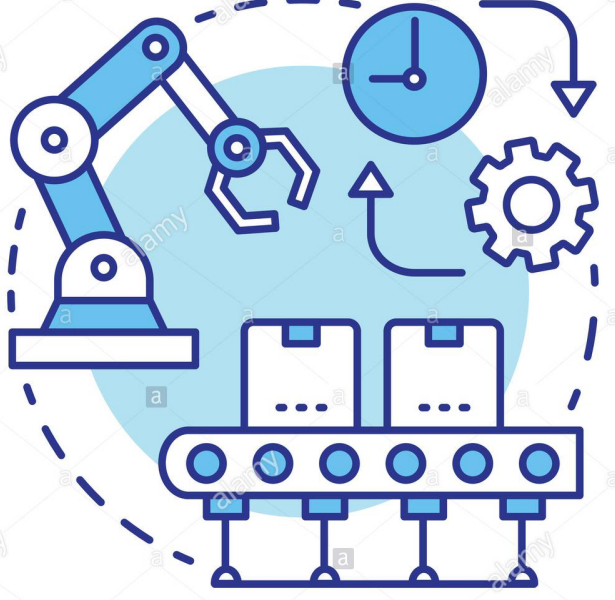



Overviews

1. The main methods of production
2. Job production
3. Batch production
4. Flow production
5. Recommend and justify an appropriate production method for a given situation



1. The main methods of production

Job production	Batch production	Flow production
is where a single product is made at a time.	is where quantity one product is made then quantity another items will be produced.	is where large quantities of products are produced in continuous process.
e.g. a custom-made dress (made to order)	e.g. batches of bread(making a chocolate bread and then make another batch of butter bread)	e.g. bottling plant (mass production in continuous process)
 <p data-bbox="549 1566 826 1603">Job Production</p> <p data-bbox="539 1647 836 1684">EDITABLE STROKE</p> <p data-bbox="493 1684 693 1710">a alamy stock photo</p>	 <p data-bbox="1492 1566 1825 1603">Batch production</p> <p data-bbox="1506 1647 1809 1684">EDITABLE STROKE</p> <p data-bbox="1459 1684 1659 1710">a alamy stock photo</p>	 <p data-bbox="2465 1566 2775 1603">Flow production</p> <p data-bbox="2472 1647 2768 1684">EDITABLE STROKE</p> <p data-bbox="2425 1684 2625 1710">a alamy stock photo</p>

2. Job production

Job production: is where a single product is made at a time such as a custom-made dress (made to order)

Advantages of job production

1. Job production is most *suitable for personal services* (e.g. massage) or one-off products (e.g. a custom-made dress).
2. The product *perfectly respond each customer request*.
3. *Workers are motivated* from having varied jobs.
4. It can contribute *high quality products* which can be charged high prices.

Disadvantages of job production

1. It may *require high skilled labour*.
2. *Costs are high* as the job production is often labour intensive.
3. It may take *a long time to produce* the products.
4. *The cost of product defect is expensive* as the products are specially made to order.
5. *The cost of material maybe expensive* as it is specially purchased.

3. Batch production

Batch production: is where quantity one product is made then quantity another items are produced; for example a batch of size S of shirts produced and then a batch of size M.

Advantages of batch production

1. It is *a flexible way of production* as it is easy to change from one product to another.
2. There still have *some variety of jobs* for workers.
3. It generates *more variety of products* which are identical.
4. If machinery breaks down, *the whole production may not be stopped*.

Disadvantages of batch production

1. It is *costly to move semi-finished* or finished products.
2. It needs to *reset machines* between production batches. It wastes time and causes output lost.
3. It *requires warehouse space* to stock materials.

4. Flow production

Flow production: is where large quantities of products are produced in continuous process. (For mass production)

Advantages of flow production

1. It is *a large scale of production* and the products are standardized.
2. *Cost per unit is kept low.*
3. The production is capital-intensive which *reduces labour cost and increases efficiency.*
4. It can achieve *economies of scales*, resulting in lower average cost.
5. Automated production lines can be *operated 24 hours a day.*
6. Goods are produced *quickly and cheaply.*

Disadvantages of flow production

1. The automated system is *boring for workers* and it causes low job satisfaction.
2. It *requires a storage* of raw materials and finished goods.
3. It *requires high budget* to invest in machines.
4. If a machine breaks down, *the whole production line will be halted.*

5. Recommend and justify an appropriate production method for a given situation

1. The nature of product

- : Individual services ⇒ **Job production**
- : Mass production ⇒ **Flow production**

2. The size of the market

- : Demand is high and more products can be sold at a certain quantity ⇒ **Batch production**
- : Demand is small or niche market ⇒ **Job or Batch production**
- : World market demand ⇒ **Flow production**

3. The natural of demand

- : Demand is large and steady e.g. water and soap ⇒ **Flow production**
- : Demand is small and less frequent e.g. furniture ⇒ **Job or Batch production**

4. The size of the business

- : Small size with lack of funding for capital ⇒ **Job or Batch production**
- : Large size with a potential budget for automated production ⇒ **Flow production**

Knockout Economics



Line :@ Knockout.Economics



FB Page : Knockout.Economics



IG : Knockout.Economics



Youtube : Knockout.Economics

Knockout.Economics by Kru P'Eve & Kru P'Da

IGCSE -Business studies

How technology has changed production methods 🔍

- Executive summary IGCSE Business studies
- Series of exam questions each chapter
- Exam Strategies and exclusive tips to achieve A* from Knockout.Economics
- Exclusive Key Terms for IGCSE Business studies exam



Overviews

1. How technology has changed production methods
2. Advantages and disadvantages of new technology



1. How technology has changed production methods

Technology can help business to reduce cost and reduce price in order to be competitive in the market.

1. Automation

- is where the equipment is controlled by computer to run mechanical processes, e.g. a painting spray on car body.

2. Mechanisation

- is where the production is done by machines but controlled by people, e.g. washing machine

3. CAD (computer aided design)

- is computer software that draws products from all designed more quickly. It is useful for creating new product design and restyling existing products.

4. CAM (computer aided manufacture)

- is where computers control machines or robots in the production process, e.g. a computer controls painting robot.

5. CIM (computer integrated manufacturing)

- is the total integration of computer aided design (CAD) and computer aided manufacturing (CAM), e.g. Computer used to create product design is linked with computer used to control production.

1. How technology has changed production methods

Technology can help business to improve productivity in shop by electronic payment methods and scanners at the tills.

1. EPOS (electronic point of sales)

- is where the operator scans the barcode of each item bought by customers at checkouts.



Reference: www.orderhive.com

2. EFTPOS (electronic funds transfer at point of sales)

- is where an electronic cash register at the tills is connected to the retailer's main computer and banks. This is used for payment by debit and credit card.



Reference: www.investopedia.com

2. Advantages and disadvantages of new technology

Advantages of new technology

1. Greater productivity
2. Greater job satisfaction as routine and boring jobs are done by machines.
3. Improving skills for labour to be able to work with capital.
4. Better product quality standards
5. Quicker communication
6. Better inventory management

Disadvantages of new technology

1. Machines replace workers, resulting in rising in unemployment.
2. Requiring large budget for investment in machines and technology.
3. High risk from investment in technology as revenue might not cover cost of investment.
4. Workers have to adjust their work practice when new technology is introduced, resulting in low job satisfaction.

Knockout Economics



Line :@ Knockout.Economics



FB Page : Knockout.Economics



IG : Knockout.Economics



Youtube : Knockout.Economics

Knockout.Economics by Kru P'Eve & Kru P'Da

IGCSE -Business studies

Exercise: Production of goods and services 🔍

- Executive summary IGCSE Business studies
- Series of exam questions each chapter
- Exam Strategies and exclusive tips to achieve A* from Knockout.Economics
- Exclusive Key Terms for IGCSE Business studies exam



Exercise

ABC company produces car parts and sell them to car manufactures in the country. The company decided to use flow production as it can exploit benefits from economies of scale. Moreover, the business is planing to replace old machines with new technology which can contribute more car parts.

1. Identify and explain **one** advantage and **one** disadvantage to ABC of using flow production. [4]

Advantage:

Explanation:

.....

Disadvantage:.....

Explanation:

.....

Exercise

ABC company produces car parts and sell them to car manufactures in the country. The company decided to use flow production as it can exploit benefits from economies of scale. Moreover, the business is planing to replace old machines with new technology which can contribute more car parts.

1. Identify and explain **one** advantage and **one** disadvantage to ABC of using flow production. [4]

Advantage:

Explanation:

.....

Disadvantage:.....

Explanation:

.....

Exercise

ABC company produces car parts and sell them to car manufactures in the country. The company decided to use flow production as it can exploit benefits from economies of scale. Moreover, the business is planing to replace old machines with new technology which can contribute more car parts.

1. Identify and explain **one** advantage and **one** disadvantage to ABC of using flow production. [4]

Advantages of flow production

1. It is *a large scale of production* and the products are standardized.
2. *Cost per unit is kept low.*
3. The production is capital-intensive which *reduces labour cost and increases efficiency.*
4. It can achieve *economies of scales*, resulting in lower average cost.
5. Automated production lines can be *operated 24 hours a day.*
6. Goods are produced *quickly and cheaply.*

Disadvantages of flow production

1. The automated system is *boring for workers* and it causes low job satisfaction.
2. It *requires a storage* of raw materials and finished goods.
3. It *requires high budget* to invest in machines.
4. If a machine breaks down, *the whole production line will be halted.*

Exercise

ABC company produces car parts and sell them to car manufactures in the country. The company decided to use flow production as it can exploit benefits from economies of scale. Moreover, the business is planing to replace old machines with new technology which can contribute more car parts.

2. Identify and explain **two** ways that workers in ABC company can be affected by the introduction of new technology [4]

Way1:.....

Explanation:.....

Way 2:.....

Explanation:.....

Exercise

ABC company produces car parts and sell them to car manufactures in the country. The company decided to use flow production as it can exploit benefits from economies of scale. Moreover, the business is planing to replace old machines with new technology which can contribute more car parts.

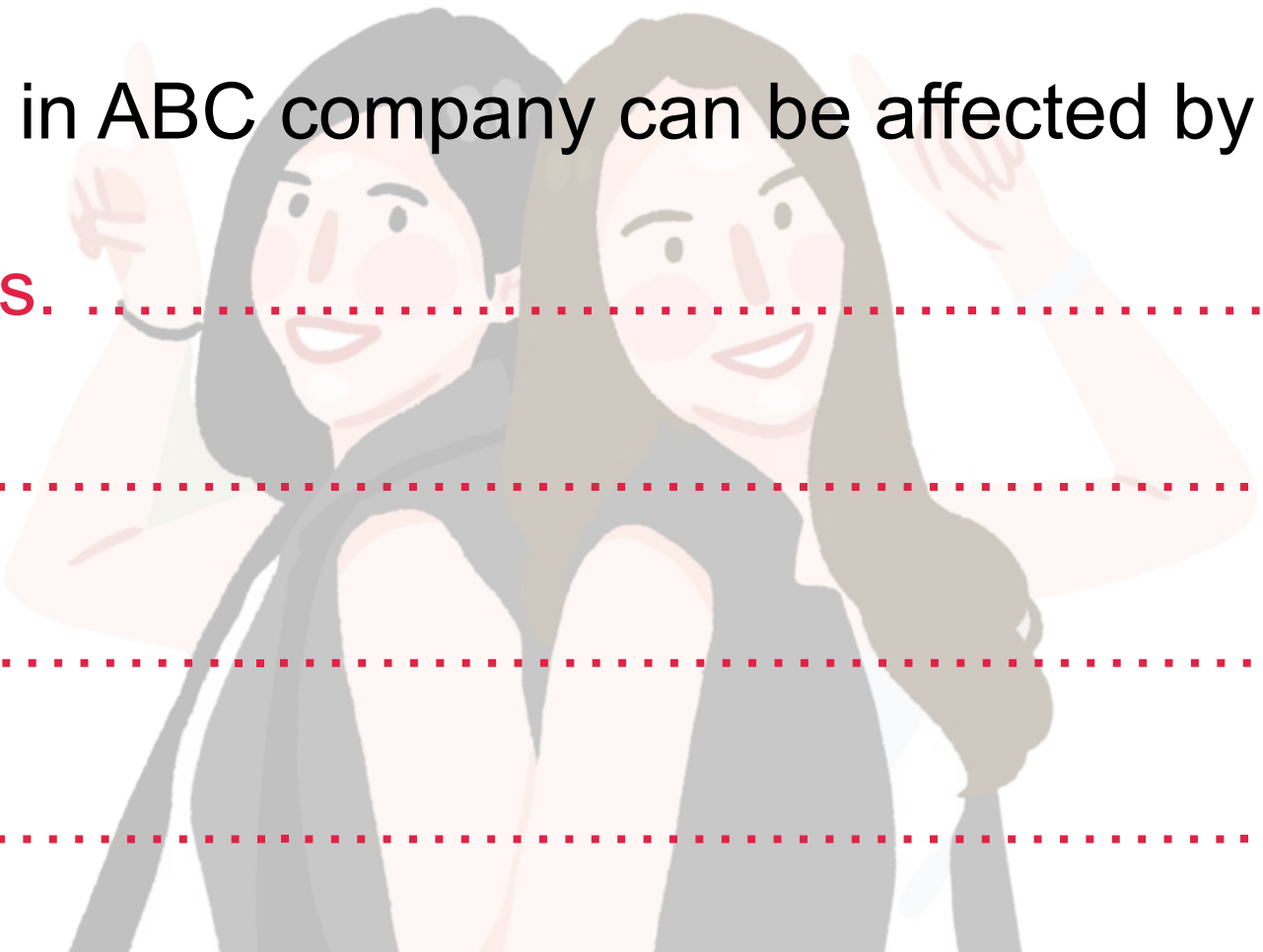
2. Identify and explain **two** ways that workers in ABC company can be affected by the introduction of new technology [4]

It may require re-training for workers.

Some workers may loss jobs..

Workers may receive higher wage.

It may demotivate workers from learning new technology.



Knockout Economics



Line :@ Knockout.Economics



FB Page : Knockout.Economics



IG : Knockout.Economics



Youtube : Knockout.Economics

1. How technology has changed production methods

Technology can help business to reduce cost and reduce price in order to be competitive in the market.

- **Automation** : is where the equipment is controlled by computer to run mechanical processes, e.g. a painting spray on car body.
- **Mechanisation** : is where the production is done by machines but controlled by people, e.g. washing machine
- **CAD (computer aided design)** : is computer software that draws products from all designed more quickly. It is useful for creating new product design and restyling existing products.
- **CAM (computer aided manufacture)** : is where computers control machines or robots in the production process, e.g. a computer controls painting robot.
- **CIM (computer integrated manufacturing)** is the total integration of computer aided design (CAD) and computer aided manufacturing (CAM), e.g. Computer used to create product design is linked with computer used to control production.

Technology can help business to improve productivity in shop by electronic payment methods and scanners at the tills.

- **EPOS (electronic point of sales)** : is where the operator scans the barcode of each item bought by customers at checkouts.
- **EFTPOS (electronic funds transfer at point of sales)** : is where an electronic cash register at the tills is connected to the retailer's main computer and banks. This is used for payment by debit and credit card.