



## ANSWERS EXAM AE3204 INTRODUCTION INTO BUSINESS ECONOMICS 23/8/2011

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### Question 1.

The organisations and individuals who make up a firm's business environment can be described as its:

- A. marketing mix.
- B. market segment.
- C. environmental set.**
- D. environmental range.

*p. 18: the people and organisations within a particular company's business environment that are of particular relevance are referred to as its environmental set.*

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### Question 2.

The term \_\_\_\_\_ is used to describe the process which basic goods pass through as they are transformed into goods for final consumption.

- A. circular flow of income
- B. value chain**
- C. logistics
- D. physical distribution

*p. 19 – 20: The purpose of organisations is to transform inputs bought from suppliers into outputs sold to customers. The buyer of one firm's output can be another firm that treats these products as inputs to his own production process. This is the basis of a value chain.*

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### Question 3.

An organisation's business environment can be defined at a number of levels. The **customers** of a business are considered to be part of the:

- A. micro-environment.**
- B. macro-environment.
- C. distinctive environment.
- D. internal environment.

*p. 13: The microenvironment of an organisation can best be understood as comprising all those other organisations and individuals who directly or indirectly affect the activities of the organisation. Customers are a crucial part of an organisation's micro-environment.*

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### Question 4.

The ethical environment comprises:

- A. a culturally conditioned set of norms governing behaviour.
- B. a set of rules that are of universal applicability to business dealings.**
- C. the legislative framework for business.
- D. voluntary codes of conduct within an industry sector.

*p. 25: Ethics is essentially about a definition of what is right and what is wrong. All systems need rules if they are to operate efficiently and effectively. These rules can be made either informal or based on formal legislation.*

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### Question 5.

The underlying reason for the upward sloping nature of the supply curve is that

- A. the production of most goods comes with increasing marginal benefits.
- B. the production of most goods comes with increasing marginal costs.**
- C. the consumption of most goods comes with decreasing marginal utility.
- D. the consumption of most goods comes with increasing marginal utility.

*p. 45 - 46: The law of supply shows us that it generally costs more per unit to sell more units, i.e. the production of most goods come with increasing marginal costs.*

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**Question 6.**

The real balances effect suggests that

**A. when prices are higher your buying power is less so you buy less.**

B. when prices are higher you buy less of what you originally wanted and use something else instead.

C. when prices are higher buy fewer because the marginal utility of a good is diminishing.

D. when prices are higher you buy more.

*p. 44: When a price increases, your buying power is decreased, causing you to buy less.*

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**Question 7.**

Which of the following goods or services can be considered a substitute for a business class KLM ticket Amsterdam to Paris?

A. Air France ticket Amsterdam to Paris

B. Hi-speed train ticket Amsterdam to Paris

C. Access to video conferencing facilities at Schiphol

**D. All of the above**

*Lecture 1b, slide 20: All of the above, it depends on which level you look: substituting it with exactly the same product or service (Air France ticket), virtually the same product or service (Hi-speed train ticket) or substituting it with the functionality of being able to discuss business issues (video conferencing facilities).*

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**Question 8.**

The elasticity of demand is related to the slope of the demand curve

A. and only the slope of the demand curve.

**B. but also the (price, quantity) position on the demand curve.**

C. but also the slope of the supply curve.

D. and whether the good is normal or inferior.

*p. 60: Elasticity is defined as the responsiveness of demand ( $\% \Delta Q$ ) to a change in price ( $\% \Delta P$ ).  $\% \Delta Q$  is determined by  $\Delta Q/Q^*$ , and likewise is  $\% \Delta P$  equal to  $\Delta P/P^*$ . From this basically follows that it is not just the slope ( $\Delta Q/\Delta P$ ) but also the position on the demand curve ( $Q^*, P^*$ ).*

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**Question 9.**

A decrease in demand will decrease prices most when supply is

A. elastic.

B. unit elastic.

C. inelastic (but not perfectly inelastic).

**D. perfectly inelastic.**

*p. 66, figure 3.8: Compared to the other three situations the difference between  $P_1$  and  $P_2$  is the largest.*

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**Question 10.**

When a start-up airline adds workers and gets more efficient, they are benefiting from

**A. the division of labour.**

B. the law of large numbers.

C. diminishing returns.

D. diminishing marginal utility.

*p. 77: With the division of labour, workers divide the tasks in such a way that each can build momentum and not have to switch jobs. Its impact is such that for a small increase in labour a firm can get a dramatic increase in output.*

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**Question 11.**

Whether marginal revenue is constant or decreasing depends on

A. whether the firm is benefiting from the division of labour.

B. whether the firm is dealing with diminishing returns.

C. how much the firm sells.

**D. whether the firm faces competition.**

*p. 81, figure 4.4 and 4.5: Setting the price and resulting marginal revenue is different from when there are many competitors versus no competition.*

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**Question 12.**

The satellite manufacturing industry (e.g. Thales Alenia Space, EADS Astrium Satellites and Space Systems) can be modelled best using the model of

**A. monopolistic competition.**

B. perfect competition.

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C. monopoly.

**D. oligopoly.**

p. 90, table 5.2: There are worldwide only several firms, there are substantial barriers to entry and products are similar or identical. Technically, one could argue that could be both monopolistic competition and oligopoly (that is why both answers are accepted as correct), however the most discriminating characteristic here would be the high barriers to entry: you need a lot of technology, capital and network to successfully build and market satellites, swaying towards oligopoly.

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**Question 13.**

If you drive on a rural stretch of motorway and come upon an intersection in which there are two petrol stations and you know them to be the only ones for 200 kilometres, they are in effect

A. monopolists.

B. monopolistic competitors.

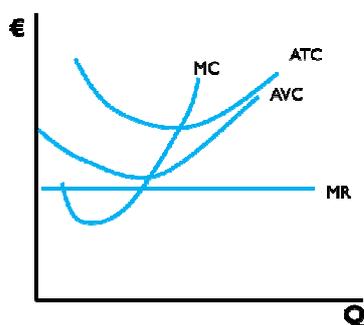
C. perfect competitors.

**D. oligopolists.**

p. 90-91: So there are effectively two petrol stations in a given area offering similar or identical products: we are talking about an oligopoly.

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**Question 14.**



In the figure above, assuming perfect competition and at the current marginal revenue level there will be

A. long run pressure on the price to rise.

B. short run pressure on the price to rise.

**C. short and long run pressure on the price to rise.**

D. no pressure on the price to change.

p. 94, figure 5.2: Marginal revenue lies below both average variable costs and average total costs, so that results in both a short and long run pressure on the price to rise.

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**Question 15.**

In general, sole traders are at a competitive advantage compared to other types of organisation where:

A. economies of scale are important.

**B. there are few economies of scale.**

C. barriers to market entry are high.

D. markets are stable.

p. 103: Being relatively small, the sole trader may suffer by not being able to exploit economies of scale available to larger firms. On the other hand, many sole traders aim for those sectors where economies of scale are either unimportant or non-existent.

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**Question 16.**

Liquidation of a company is most likely to involve, among other things:

A. finding a buyer for the business as a going concern.

B. developing a new marketing strategy.

**C. selling off the physical assets of the company.**

D. maximising shareholders' profits.

p. 107: Liquidation is the process of breaking up a business. It involves several things, but MOST likely it involves selling off the physical assets of the company.

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**Question 17.**

The liability of shareholders of a typical commercial limited company to personally make up the debts of the company is:

A. proportionate to their shareholding.

B. equivalent to assets less liabilities.

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C. limited to the net value of a company's assets.

**D. limited to the value of their shares.**

*p. 105 – 106: We are talking about a TYPICAL commercial limited company. The majority of companies are limited by shares – members' liability to contribute to the assets of the company is limited to the amount (if any) that is unpaid on their shares.*

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**Question 18.**

In relation to profit maximisation, market share maximisation is:

A. mutually exclusive.

B. necessary pre-requisite.

**C. often a contributory factor.**

D. a necessary consequence.

*p. 129 - 130: It is important to think cause – effect here: Is one effect ALWAYS the necessary cause or vice versa? You can strive for both profit and market share maximisation (so no A), you can aim for profit maximisation without market share maximisation (so no B), and market share maximisation is not a necessary consequence of profit maximisation (so no D). But market share maximisation does often contribute to profit maximisation.*

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**Question 19.**

Which of the following is **NOT** a growth option identified in Ansoff's Product/Market expansion matrix?

A. market penetration strategy

B. product development strategy

C. diversification strategy

**D. cost leadership strategy**

*p. 145, figure 8.1: Ansoff's matrix exists of market penetration strategy, market development strategy, product development strategy and diversification. So cost leadership is not identified in Ansoff's matrix.*

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**Question 20.**

Compared to growth by acquisition, organic growth is normally considered to be:

A. a means of more rapid growth.

B. appropriate only to small organisations.

**C. a less risky form of growth.**

D. a more risky form of growth.

*p. 148: Organic growth is considered to be the more natural pattern of growth for an organisation. Past profits, established customer base and a well-established technical personnel and finance structure, provide a foundation for future growth. Thus making it less risky. It is usually slower than growth by acquisition and appropriate to all types of organisations.*

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**Question 21.**

An airframe manufacturer (e.g. Boeing or Bombardier) acquiring an aluminium production plant is an example of:

A. forward vertical integration.

**B. backward vertical integration.**

C. horizontal integration.

D. diversification.

*p. 153: An airframe manufacturer – manufacturing airframes or aircraft – acquiring a plant to source the raw material needed in their finished product (aircraft), is moving upstream in the value chain, i.e. acquiring a supplier. This is called backward vertical integration.*

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**Question 22.**

An economy of scale necessarily implies:

A. rising unit costs as output rises.

**B. falling unit costs as output rises.**

C. falling total production costs as output rises.

D. increasing total production costs.

*p. 141: Economies of scale are realised when fixed costs of production are a large portion of the total production costs. As the number of units produced rises, the fixed costs are divided by a larger number of units, causing the total costs per unit to fall.*

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**Question 23.**

Which of the following is **NOT** true of capital raised through ordinary shares?

**A. A dividend has to be paid to shareholders, regardless of the company's profitability.**

B. It is a relatively low cost source of finance to fund capital investment.

C. Shareholders have power to elect directors of a company.

D. Shareholders cannot guarantee the return of their share capital.

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p. 155 – (see the link with question 18 in terms of claims: is it always true? Alternative A is not true: a dividend CAN be paid, but does not HAVE to be!

**Question 24.**

Which of the following statements is correct?

- A. Assets are future cash outflows.
- B. Liabilities are future cash inflows.
- C. Assets are the sum of liabilities and owner's equity.**
- D. Assets are the difference between liabilities and owner's equity.

p. 171: assets are defined as the sum of liabilities and equity. This shows a total of assets and then how they were financed: partly with other people's money, and partly by the owner's equity.

**Question 25.**

Inventory, trade receivables and cash are classified as:

- A. current liabilities.
- B. long-term assets.
- C. current assets.**
- D. long-term liabilities.

p. 172 – 173: Current assets include inventories, trade receivables, investments, prepayments and cash.

**Question 26.**

A company is said to be 'high geared' when:

- A. it has a high amount of long-term debt.**
- B. it has a low amount of long-term debt.
- C. it has a low amount of current assets.
- D. it has a high amount of owner's equity.

p. 181: gearing ratio looks at what proportion of the long-term debt was borrowed. High geared means the company relies heavily on long-term borrowings.

**Question 27.**

If owner's equity is € 280,000, non-current assets € 320,000, long-term borrowing € 80,000 and current liabilities € 40,000, what is the value of the current assets?

- A. € 80,000**
- B. € 120,000
- C. € 160,000
- D. € 480,000

p. 171: assets = liabilities + equity → current assets = liabilities + equity – non-current assets → (€ 80,000 + € 40,000) + (€ 280,000) – (€ 320,000) = € 80,000

**Question 28.**

The balance sheet of Aerospace Products b.v. includes the following entries:

inventory	€ 50,000
trade receivables	€ 28,000
cash	€ 12,000
current liabilities	€ 50,000
trade payables	€ 32,000
short-term borrowing	€ 1,600
current tax payable	€ 16,400

Calculate the liquidity ratio.

- A. 0.8:1**
- B. 1:1
- C. 0.4:1
- D. 1.8:1

p. 181: Liquidity ratio = (current assets excl. inventories) : (current liabilities) = (€ 28,000 + € 12,000) : (€ 50,000) = 0.8 : 1

**Question 29.**

Profit before tax:

- A. Operating profit + interest receivable + interest payable
- B. Operating profit + interest receivable - interest payable**
- C. Operating profit - interest receivable - interest payable

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D. Operating profit - tax

p. 198: Profit before taxation is arrived at by operating profit minus finance costs (interest receivable and payable). So interest payable (e.g. on a loan from a bank) is deducted from operating profit and interest receivable (e.g. on loan to another company) is added to operating profit.

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**Question 30.**

Which of the following statements is correct?

- A. Buying new premises is a revenue expenditure
- B. Buying a new car is capital expenditure**
- C. The cost of using a car is a capital expenditure
- D. Statements A and C are both correct

p. 212: Capital expenditure adds to the amount for fixed assets that are shown on the balance sheet as 'property, plant and equipment', under the heading 'non-current assets'. Revenue expenditure appears on the income statement, not the balance sheet, and is an immediate charge against profit. Buying a new car, premises or machinery is capital expenditure. Maintaining them and the costs of using them are revenue expenditure.

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**Question 31.**

If purchases for the year are € 18,250, closing stock € 7,275 and cost of goods sold € 17,525, what was the opening stock?

- A. € 6,550**
- B. € 7,950
- C. € 28,550
- D. € 7,225

p. 204, illustration 2.3: opening stock + purchases = cost of goods available for sale – closing inventory = cost of good sold → opening stock = cost of goods sold + closing stock – purchases = € 17,525 + € 7,275 - € 18,250 = € 6,550

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**Question 32.**

If a company buys a machine for € 12,000 with an estimated useful life of 4 years and a residual value of € 4,000, what is the annual depreciation charge if calculated on a straight line basis?

- A. € 2,000**
- B. € 4,000
- C. € 1,000
- D. € 3,000

p. 206: the total amount to be depreciated is € 8,000 (€12,000 - € 4,000), using a straight line basis this works out at € 2,000 over four years.

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**Question 33.**

If the cost of goods sold was € 8,000 for goods which eventually sold for € 20,000, what is the mark-up?

- A. 40%
- B. 60%
- C. 150%**
- D. 250%

p. 205: the mark up is € 12,000 (€ 20,000 - € 8,000). Expressed as a percentage this is € 12,000 / € 8,000 = 150%

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**Question 34.**

Throughput costing:

- A. measures only unit-level spending for direct costs of products or services.**
- B. includes both committed and discretionary costs in the costs of products or services.
- C. includes both direct and indirect costs in the costs of products or services.
- D. includes only variable costs in the costs of products or services.

p. 309: Throughput costing assigns only the unit-level spending for direct costs as the costs of products or services.

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**Question 35.**

Under variable costing, operating income is measured by:

- A. gross margin minus operating expenses.
  - B. throughput minus operating expenses.
  - C. contribution margin minus indirect manufacturing and operating costs.**
  - D. sales minus variable costs.
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p. 303 – 305: Sales revenue – variable expenses = contribution margin – fixed expenses (indirect manufacturing and operating costs) = operating income.

**Question 36.**

Use the following for questions 36 and 37.

Model	model X	model Y
<b>Quantity produced</b>	<b>60</b>	<b>100</b>
Unit-level material cost	€ 42,000	€ 100,000
Variable conversion cost	72,000	300,000
<b>Total direct costs</b>	<b>€ 114,000</b>	<b>€ 400,000</b>
<b>Indirect costs</b>		
Indirect manufacturing costs	163,200	272,000
Indirect operating costs	255,000	425,000
<b>Total indirect costs</b>	<b>418,200</b>	<b>697,000</b>
<b>Total costs</b>	<b>€ 532,200</b>	<b>€ 1,097,000</b>

If the cost behaviours exhibited in this chart continue and the company produces 90 units of product of model X during May, the expected total unit-level material cost of product model X would be:

- A. € 171,000
- B. € 42,000
- C. € 114,000
- D. € 63,000**

p. 296: total unit-level material for model X is € 42,000 for 60 units, which is € 700 per unit. Producing 90 units, total unit-level material costs would rise to € 63,000 (90 times € 700).

**Question 37.**

Use the table from question 36. The absorption cost per unit for model Y was:

- A. € 1,900
- B. € 9,760
- C. € 6,970
- D. € 6,720**

p. 302 – 305: Absorption costing applies all manufacturing overhead costs to manufactured goods, along with direct material and direct-labour costs. So this means adding total direct costs and indirect manufacturing costs (€ 400,000 + € 272,000) is € 672,000 for 100 units, which is € 6,720 per unit.

**Question 38.**

If units produced are greater than units sold:

- A. variable costing will have a higher profit than absorption costing.
- B. throughput costing will have a higher profit than absorption costing.
- C. absorption costing will have a higher profit than throughput costing but a lower profit than variable costing.
- D. absorption costing will have a higher profit than both throughput costing and variable costing.**

p. 305 – 307: If units produced are greater than units sold, this means that inventory is increasing, and since the fixed costs are inventoried under absorption costing, some of this costs remains in inventory at the end of the year, causing a higher profit compared to both throughput and variable costing.

**Question 39.**

Which of the following is **NOT** a basic step that is used to determine the cost of goods using Activity- Based Costing?

- A. Identify and classify the activities related to the company's products
- B. Calculate a cost-driver rate for each activity
- C. Classify all costs into variable and fixed cost behaviour**
- D. Assign activity costs to products

p. 339 – 340: Four steps are used to determine the cost of goods using ABC: 1) identify and classify the activities related to the company's products, 2) estimate the cost of activities identified in step 1, 3) calculate a cost driver rate for each activity, and 4) assign activity costs to products. Alternative C is not a basic step.

**Question 40.**

Costs associated with a quality control and inspection of **all** finished products would be an example of:

- A. product-level activity.

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**B. unit-level activity.**

- C. batch-level activity.
- D. customer-level activity.

p. 341: If you have to control and inspect all finished products – or “every” finished product, that is a unit-level activity: you have to perform it for every unit that you produce. If your quality control policy would allow you to sample the quality of 1% of every product, it would be a product-level activity.

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**Question 41.**

Which of the following statements about activity based costing is **NOT** true?

- A. Activity based costing differs from traditional costing systems in that products are not cross subsidized.
- B. In activity based costing, cost drivers are usually what cause costs to be incurred.
- C. Activity based costing is more likely to result in major differences from traditional costing systems if the firm manufactures only one product rather than multiple products.**
- D. Activity based costing is useful for allocating marketing and distribution costs.

p. 350 – 352: ABC traces the costs of resources to activities, which are the basic elements of an organisation’s work. By doing that you’re avoiding cross subsidisation of products, you’re looking for cost drivers, causing costs to be incurred, and is useful for allocating marketing and distribution costs. If a company only manufactures one product, all the costs incurred can be allocated to that product, so there are NOT likely to be major differences from traditional costing systems.

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**Question 42.**

The Aircraft Company (TAC) manufactures specialist parts for both commercial and military aircraft. TAC is considering either a company-wide overhead rate or departmental overhead rates to allocate €1,800,000 of indirect costs. The company-wide rate would be based on either direct labour hours or the number of aircraft manufactured. The departmental rates would be based on direct labour time for commercial aircraft and a dual rate based on direct labour time and the number of aircraft for military activity. The following information was gathered:

Department	Direct labour hours	No. of aircraft parts manufactured	Direct costs
Commercial	12,000	16	€ 00,000
Defence	8,000	4	€ 300,000

If TAC uses a company-wide rate based on the number of aircraft parts processed, what would be the indirect costs assigned to the Defence Department?

- A. € 90,000
- B. € 360,000**
- C. € 720,000
- D. € 1,200,000

p. 345: € 1,800,000 for 20 parts is € 90,000 per part. The Defence Department manufactures 4 parts, which equals 4 times € 90,000 = € 360,000.

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**Question 43.**

Which of the following methods would be most helpful in identifying outliers?

- A. Scattergraph**
- B. Account analysis
- C. Multiple regression
- D. All of the above

p. 388 – 389: The question is which is MOST helpful. The correct answer is A, scattergraph, because it visually plots data points and you can easily spot whether something fits the regression line, or whether it is an outlier.

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**Question 44.**

Salaries for KLM check-in personnel where one check-in clerk can handle up to 100 passengers per hour is an example of what type of cost?

- A. Fixed cost
- B. Variable cost
- C. Mixed cost
- D. Step cost**

p. 383 – 384: This is a step cost, or semi fixed cost: if KLM want to process between 1 and 100 passengers per hour it needs the cost of 1 check-in clerk, from 101 to 200 passengers it pays the costs for 2 check-in clerks and so on.

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**Question 45.**

Use the following to answer questions 45 and 46.

Shumway Company is making plans for the introduction of a new product that it will sell for € 10 per unit. The following estimates have been made for manufacturing costs assuming 100,000 units will be produced in the first year:

Direct materials: € 180,000

Direct labour: € 135,000 (the labour rate is € 9 an hour for 15,000 hours)

Manufacturing overhead costs have not yet been estimated for the new product, but monthly data on the total production and overhead costs for the past 24 months have been analysed using simple linear regression. The following results were derived from the simple regression and will provide the basis for overhead cost estimates for the new product.

Simple Regression Analysis Results:

Dependent variable	Factory overhead costs
Independent variable	Direct labour hours
<b>Computed values</b>	
Intercept	€ 95,500
Coefficient of independent variable	€ 1.70
Coefficient of correlation	.952
r-squared	.909

What percentage of variation in the overhead costs is explained by the independent variable?

- A. 9.0%
- B. 65.0%
- C. 90.9%**
- D. 95.2%

*p. 389: The R-square is the proportion of the variation in the Y or dependent variable that is explained by X or the independent variable. It lies between 0.00 and 1.00, explaining between 0% and 100% of the variation. So an R-square of 0.909 means 90.9% of the variation is explained.*

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**Question 46.**

Please use the information provided in the previous question.

The total overhead cost for an estimated activity level of 20,000 direct labour hours would be:

- A. € 34,000
- B. € 95,500
- C. € 129,500**
- D. None of the above

*p. 386:  $TC = F + VX \rightarrow$  Factory overhead costs = € 95,500 + (€ 1.70 x 20,000 h) = € 129,500*

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**Question 47.**

The sequence of activities within the firm which begins with research and development, followed by design, and manufacturing, marketing/distribution, and customer service is the:

- A. Sales life cycle.
- B. Target life cycle.
- C. Critical life cycle.
- D. Cost life cycle.**

*p. 438, Exhibit 13.6*

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**Question 48.**

The theory of constraints (TOC) emphasizes which of the following?

- A. Developing competitive constraints.
- B. Removing bottlenecks from the production process.**
- C. Finding and eliminating design constraints.
- D. Improving overall production efficiency.

*p. 439: TOC was developed to help managers reduce cycle times and operating costs. Prior to TOC, managers often devoted efforts to improve efficiency and speed throughout the manufacturing process instead of focussing attention on just those activities that were constraints (i.e. bottlenecks) in the process. TOC has turned the attention to improving speed at the constraints, by removing bottlenecks.*

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**Question 49.**

Aircraft Component International (ACI) manufactures valves for aircraft landing gear. The Vice President for marketing at ACI, concluded from market analysis that sales have dropped for ACI's valves due to aggressive pricing by competitors. ACI's valves sells for € 1,140 whereas the competition's comparable workbench sells for € 1,060. The VP determined that a price drop to € 1,060 would be necessary to retain market share and annual sales of 13,000 valves.

Cost data based on sales of 13,000 valves:

	Budgeted quantity	Actual quantity	Actual cost
Direct materials (kg)	175,000	168,000	€ 3,450,000
Direct labour (hours)	72,800	71,500	825,000
Machine setups (no. of setups)	900	880	250,000
Mechanical assembly (machine hours)	273,000	281,250	3,750,000

The current profit per unit is:

**A. € 503**

B. € 674

C. € 616

D. € 694

*p. 431: Profit per unit = revenue per unit – cost per unit = (€ 1,140) – ((€ 3,450,000 + € 825,000 + € 250,000 + € 3,750,000)/13,000 valves) = € 1,140 - € 637 = € 503*

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**Question 50.**

Please use information provided in previous question. If the profit per unit is maintained, the target cost per unit is:

A. € 488.81

**B. € 556.54**

C. € 515.81

D. € 423.73

*p. 431: Target cost per unit = Revenue per unit – profit per unit = € 1,060.00 - € 503.46 = € 556.54*

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**END OF EXAM**