



**ANSWER KEY EXAM AE3204 INTRODUCTION INTO BUSINESS ECONOMICS
13TH APRIL 2011**

Question 1.

Which of the following is not part of a firm's macro-environment?

- A. political environment
- B. internal environment**
- C. social environment
- D. economic environment

Firm's macro environment consists of political, social and cultural, demographic, technological and economic environment. The internal environment is no part of that. (p. 7 – 13)

Question 2.

Stakeholders are necessarily _____

- A. the owners of a business.
- B. the controlling directors of a business.
- C. anybody who sells to a business.
- D. any individual or organisation who is affected by the activities of a business.**

Stakeholders are other companies, organisations or individuals with a keen interest in the activities of an organisation. (p. 13)

Question 3.

Which of the following represents the most important reason why firms monitor their demographic environment?

- A. to predict the size of market segments**
- B. to predict political change
- C. to explain historical trends
- D. to predict business cycles

Demography studies the changes in size and age structure of the population. This is critical to many organisations for predicting both the demand for their products and the availability of personnel required for production (p. 10)

Question 4.

Viewed as a system, the essential purpose of all business organisations is to:

- A. make the maximum level of profits.
- B. make a satisfactory level of profits.
- C. transform inputs to outputs.**
- D. be a 'good citizen'.

Business organisations exist to turn inputs from their environment (e.g. materials, labour and capital) into goods and services that customers in the environment want to purchase. (p. 4)

Question 5.

When an economics student draws a supply and demand diagram to model an increase in the income, she is assuming this change happens

- A. semper fidelis. [always faithful – the motto of the US Marine Corps]
- B. ceteris paribus. [other things equal]**
- C. ipso facto. [by the fact itself]
- D. de facto. [by the fact]

Economist focus on one change, leaving all the other conditions of the model as they were. (p. 40)

Question 6.

If the supply and demand curves cross at a quantity of 100, then the price necessary to get firms to sell more than that will have to be _____ equilibrium.

A. above

B. at

C. below

D. within 10% either way of

The law of supply states that there is a positive relationship between price and quantity. If you want to get the firms to sell more, you'll have to increase the price, i.e. price needs to be above the equilibrium price. (p. 45)

Question 7.

Holiday Airlines has a budget of € 400 million to buy 5 Airbus A321's. If the price of an A321 increases from € 80 million to € 90 million apiece, Holiday Airlines can only afford 4 aircrafts. This is an example of

A. the real balances effect.

B. the substitution effect.

C. the law of diminishing returns.

D. the law of supply.

The real balances effect is when a price of good or service increases, your buying power is decreased, causing you to buy less. (p. 44)

Question 8.

If the price of a good increases by 10% and the quantity demanded decreases by 5%, then at that price, the good is

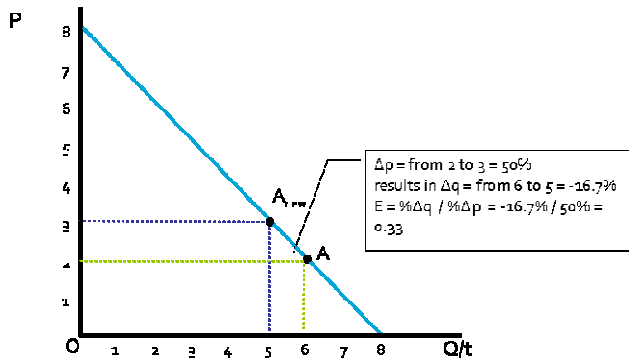
A. elastic.

B. inelastic.

C. perfectly inelastic.

D. perfectly elastic.

Elasticity is defined by $\% \Delta Q / \% \Delta P$. Demand is elastic when the percentage change in quantity is larger than the percentage change in price and inelastic when the percentage change in quantity is smaller than the percentage change in price. The percentage change in quantity is smaller than the change in price ($5\% < 10\%$), so demand is inelastic. (p. 61)

Question 9.

At point A of the figure above, demand is

A. elastic.

B. inelastic.

C. perfectly inelastic.

D. perfectly elastic.

If we change the price from A to Anew, we can see that the percentage change in quantity is smaller than the percentage change in price, therefore demand is inelastic. (p. 60 – 61)

Question 10.

When Lockheed Martin adds workers to the assembly process and finds that the additional workers add less to output than their predecessors did, they are experiencing

- A. the division of labour.
- B. the law of large numbers.

C. diminishing returns.

- D. diminishing marginal utility.

Addition of resources does increase production, but at a decreasing rate. This notion is called diminishing return (p. 77)

Question 11.

Suppose SES World Skies has € 1,000,000,000 in fixed costs and variable costs equal to € 100,000 for every unit they produce,

- A. their marginal costs are decreasing.

B. their average costs are decreasing.

- C. their fixed costs are decreasing.
- D. the marginal costs are increasing.

Marginal costs are defined as a change in total cost divided by a change in output. With a constant variable cost, the marginal costs equals the variable costs of € 100,000 per unit. Marginal costs stay therefore stay constant (and are neither decreasing nor increasing). Fixed costs also stay constant. If you increase the number of units, the average costs per unit ((fixed costs/ number of units) + (variable costs per unit)) decrease, because you can divide your fixed costs over a larger number of units. (p. 78)

Question 12.

The airframe manufacturing industry (e.g. Boeing, Airbus and Embraer) can be modelled best using the model of

- A. monopolistic competition.
- B. perfect competition.
- C. monopoly.

D. oligopoly.

There is only a handful of airframe manufacturers offering similar products and there are substantial barriers to entry, therefore it can best be modelled by using the model of oligopoly. (p. 90)

Question 13.

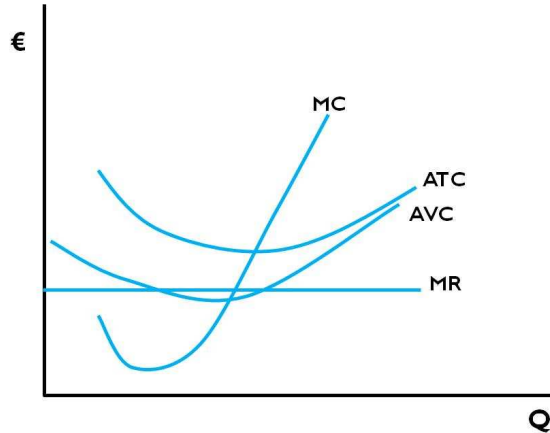
Suppose you can fly from London to New York and 15 separate airlines provide the service. This market would be described by

- A. limited competition.

B. monopolistic competition.

- C. oligopoly.
- D. monopoly.

There are several airlines that are offering similar but not identical products/ services. This market therefore best be described as monopolistic competition. (p. 90)

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. no pressure on the price to change.
- D. short and long run pressure on the price to rise.

In perfect competition, economic profits go to zero and profit maximising firms choose marginal cost equaling marginal revenue. So at the current marginal revenue level the company is loss making (average total costs is higher than marginal/ average revenue), but not enough to close down in the short run (marginal revenue higher than average variable costs). Therefore the long-run pressure is for the price to rise. (p. 92 – 93)

Question 15.

The key distinguishing feature of a sole trader is

- A. low level of turnover.
- B. small number of employees.
- C. lack of distinction between the owner and the business.**
- D. requirement to file annual accounts.

The concept of a separate legal form does not apply to this type of organisation, for the business and the individual are considered to be legally indistinguishable. (p. 101)

Question 16.

Which of the following is likely to be the most important reason for a company seeking to convert to Public Limited Company (plc) status?

- A. greater regulatory control
- B. greater level of attention from the financial community
- C. to have access to additional sources of finance**
- D. to add to a company's prestige

It is a way for private limited companies that have exhausted their routes of funding, to go public and thereby attracting capital from a wider audience. (p. 108)

Question 17.

In relation to market deregulation, privatisation is

- A. synonymous.
- B. a necessary pre-requisite.
- C. a necessary outcome.
- D. not necessarily connected.**

Deregulation is where government subtract legislation which affects a company's operations. Privatisation is where state-owned organisations are being sold of to the private parties thus allowing for competition and more value for money. They are related but not necessarily connected (p. 110).

Question 18.

An airline charging very low prices which just cover its short-term direct costs is MOST likely working to a goal of:

- A. survival.**
- B. profit maximisation.
- C. satisficing.
- D. social marketing orientation.

Covering only short-term direct costs, rather than having a long-term perspective can be most likely be associated with survival. (p. 132)

Question 19.

Space Pro Ltd, a company that delivers components to the space industry that is seeking to also sell its products to the automotive industry, can best be described as pursuing which type of growth strategy?

- A. market penetration strategy
- B. product development strategy
- C. diversification strategy
- D. market development strategy**

Using existing products in a new market is called a 'market development strategy'. (p. 145)

Question 20.

An aircraft manufacturer becoming involved in the maintenance of its aircraft in operation is an example of:

- A. forward vertical integration**
- B. backward vertical integration
- C. horizontal integration
- D. diversification

An aircraft manufacturer typically manufactures and sells aircraft. For the manufacturer to also become involved the next link in the value chain, i.e. the operation/ maintenance of aircraft, is called 'forward vertical integration'. (p. 153)

Question 21.

'Economies of scope' implies that as a firm gets larger:

- A. its unit costs necessarily decrease
- B. its unit costs necessarily increase
- C. it can offer a wider range of goods and services to its customers**
- D. it can outsource its production

Economies of scope mean that a wider range of goods and services can be offered to customers. (p. 141)

Question 22.

Which of the following types of business expansion is most likely to result in economies of scale?

- A. diversification
- B. horizontal integration**
- C. backward vertical integration
- D. forward vertical integration

Economies of scale can be achieved when high cost of capital equipment can be spread over a greater number of units of output. This is most likely to happen when the company acquires a similar business, i.e. horizontal integration (p. 277)

Question 23.

A company's ratio of share capital to loan finance is referred to as its:

- A. level of diversification
- B. level of focus
- C. concentration level
- D. gearing**

Gearing expresses the proportion of long-term finance borrowed compare to shareholders' funds. (p. 181)

Question 24.

The accounting equation can be stated as:

- A. assets = liabilities + owner's equity**
- B. assets + liabilities = owner's equity
- C. liabilities = owner's equity + assets
- D. assets = liabilities - owner's equity

The balance sheet equation can be written in different ways, but of the four alternatives mentioned above the only correct one is "assets equals liabilities plus owner's equity" (p. 171)

Question 25.

An example of a current asset is:

- A. inventory**
- B. equipment
- C. retained earnings
- D. owner's equity

Current assets are short term assets, and include inventories, trade receivables, investments, prepayments and cash (p. 173)

Question 26.

A company with a high current ratio is said to have:

- A. few liquid assets.
- B. high current liabilities and low current assets.
- C. high current assets and low current liabilities.**
- D. high long-term borrowing.

Current ratio is the ratio of current assets to current liabilities. If the ratio is high, then current assets needs to be high(er) and current liabilities needs to be low(er). (p. 179)

Question 27.

If non-current assets are € 250,000, current assets € 70,000, long-term borrowing € 50,000 and current liabilities € 10,000 , what is the value of owner's equity?

- A. € 120,000
- B. € 240,000
- C. € 260,000**
- D. € 270,000

equity = assets – liabilities, so $(250,000 + 70,000) - (50,000 + 10,000) = € 260,000$ (p. 171)

Question 28.

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

inventory	€ 25,000
trade receivables	€ 12,000
cash	€ 11,000
current liabilities	€ 25,000
trade payables	€ 16,000
short-term borrowing	€ 800
current tax payable	€ 8,200

Calculate the current ratio.

- A. 0.9: 1
- B. 1:1
- C. 0.4:1
- D. 1.9:1**

Current ratio = current assets : current liabilities = $(25,000 + 12,000 + 11,000) : (25,000) = 1.9 : 1$ (p. 179)

Question 29.

Operating profit is:

- A. sales - cost of sales + operating expenses
- B. sales - cost of sales - operating expenses**
- C. sales + cost of sales + operating expenses
- D. sales + cost of sales - operating expenses

Operating profit is sales (money coming in) minus cost of sales (money going out) and minus operating expenses (money going out) (p. 197)

Question 30.

Which of the following statements is false?

- A. The "equity" component of the balance sheet is increased by the amount of profit earned during the year.
- B. The "equity" component of the balance sheet is decreased by the amount of profit earned during the year.**
- C. The "equity" component of the balance sheet is reduced by the amount of dividend to be paid for the year.
- D. The "equity" component of the balance sheet may change as the result of a revaluation of assets.

The "equity" component is increased by the amount of profit earned during the year (A), minus the amount of dividend to be paid for the year (C), and the equity component may change as a result of revaluation of assets (D). So statement B is false. (p. 178)

Question 31.

If opening stock is € 2,000, purchases for the year € 12,000 and closing inventory € 3,000, what is the cost of goods sold?

- A. € 13,000
- B. € 7,000
- C. € 11,000**
- D. € 17,000

Purchases for the year is € 12,000 but with an additional € 1,000 in inventory (3,000 – 2,000). So the cost of goods sold is € 12,000 minus € 1,000 equals € 11,000. (p. 292)

Question 32.

If a company purchases a machine for € 60,000 and charges depreciation at 10% on a diminishing balance basis, what is the depreciation charge in the fourth year?

- A. € 5,042
- B. € 4,860
- C. € 6,000
- D. € 4,374**

1st year depreciation (10% of € 60,000) = € 6,000 (→ value after one year € 60,000 - € 6,000 = € 54,000)

2nd year depreciation (10% of € 54,000) = € 5,400

3rd year depreciation (10% of € 48,600) = € 4,860

4th year depreciation (10% of € 43,740) = € 4,374 (p. 206)

Question 33.

If the cost of goods sold was € 8,000 for goods which eventually sold for € 20,000, what is the gross profit ratio?

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

Gross profit ratio expresses gross profit as a percentage of sales. So if sales are € 20,000 and cost of goods sold was € 8,000, then gross profit is € 12,000. So gross profit ratio is 12,000 / 20,000 = 60% (p. 204)

Question 34.

Use the following for questions 34 and 35.

Beginning inventory in units	0
Units produced	4,800
Units sold	4,000
Sales	€ 400,000
Material cost (unit level or variable)	€ 96,000
Variable conversion cost used (committed)	€ 48,000
Facility-level or fixed manufacturing cost	€ 72,000
Indirect operating cost (fixed)	€ 80,000

The throughput product cost of goods sold is:

- A. € 80,000**
- B. € 96,000
- C. € 120,000
- D. € 144,000

Throughput costing assigns only the unit-level spending for direct costs as the costs of products or services (p. 309). In this case it is only the material cost € 96,000 for 4,800 units = € 20 per unit. There are 4,000 units sold, so the throughput cost of goods sold is $4,000 \times 20 = € 80,000$

Question 35.

Use the table from question 34. The absorption cost of goods sold is:

- A. € 40,000
- B. € 120,000
- C. € 180,000**
- D. € 246,667

Manufacturing costs per unit is € 30 ($(96,000 + 48,000) / 4,800$), fixed manufacturing overhead per unit is € 15 ($72,000 / 4,800$). Total absorption cost per unit is € 45, multiplied by number of units sold (4,000) gives you the absorption cost of goods sold (€ 180,000). (p. 303)

Question 36.

Which of the following is not a relevant cost for a decision?

- A. variable cost
- B. opportunity cost
- C. direct cost
- D. sunk cost**

Sunk costs are past payments for resources that cannot be changed by any current or future decision; they are therefore not relevant for a decision. (p. 299)

Question 37.

Under throughput costing:

- A. both conversion and indirect costs are added to inventory.
- B. neither conversion or indirect costs are added to inventory.**
- C. conversion costs are added to inventory but indirect costs are not.
- D. indirect costs are added to inventory but conversion costs are not.

Throughput costing assigns only the unit-level spending for direct costs as the costs of products or services (p. 309). So neither conversion or indirect costs are added to inventory.

Question 38.

Which of the following statements is true?

- A. Operating income under variable costing equals contribution margin less operating expenses.
- B. When sales exceed production, absorption costing income will be higher than variable costing income.
- C. Throughput costing assigns all variable costs to cost of goods sold.
- D. When production exceeds sales, absorption costing income will be higher than variable costing income.**

When production exceeds sales, i.e. there is an increase in inventory, absorption costing income will be higher, because the fixed-overhead rate for inventory hasn't been incurred yet (only once the inventory is sold). Therefore in this case the difference between sales and costs is larger under absorption costing. (p. 306)

Question 39.

Which of the following is the first step in Activity-Based Costing?

- A. assign activity costs to products (step 4)
- B. identify and classify activities related to the company's products (step 1)**
- C. calculate a cost-driver rate for each activity (step 3)
- D. estimate the cost of activities (step 2)

The four steps used to determine the costs of goods and services using ABC are mentioned on pp. 339-340.

Question 40.

For an airframe manufacturer, costs associated with painting finished aircraft would be an example of:

- A. unit-level activity**
- B. batch-level activity
- C. customer-level activity
- D. product-level activity

The painting takes place specifically for each aircraft, which is an individual unit of product. (p. 341)

Question 41.

Cost drivers are:

- A. costs linked to two or more other costs.
- B. a mechanical basis, such as machine hours, computer time, size of equipment, or square footage of factory, used to assign costs to activities.
- C. activities that cause costs to increase as the activity increases.**
- D. accounting measurements used to evaluate whether or not performance is proceeding according to plan.

A cost driver is a characteristic of an activity or an event that causes that activity or event to cause costs (p. 345).

Question 42.

The Activity-Based Costing full costing approach says:

- A. only costs that are clearly and certainly driven by specific units should be assigned to these units.
- B. higher-level resources, such as product-level activities should not be assigned to units.
- C. the firm has costs because it produces units; therefore all costs related to the production and sale of the units should be assigned to units.**
- D. only unit-level and batch-level costs should be assigned to units.

ABC is a costing method that first assigns to activities and then to goods and services based on how much each good or service uses the activities. This fits with the philosophy expressed in alternative C. (p. 339)

Question 43.

Which of the following cost estimation methods uses regression analysis?

- A. statistical methods**
- B. account analysis
- C. engineering estimates
- D. all of the above

Regression analysis is a statistical method used to create an equation relating independent variables to dependent variables (p. 386).

Question 44.

The cost for a salesperson that is paid a flat salary of € 2,000 per month plus a 3% commission on all sales is an example of what type of cost?

- A. fixed cost
- B. variable cost
- C. step cost
- D. mixed cost**

Costs with a fixed and variable component are called 'mixed costs' (p. 385).

Question 45.

Which of the following represent data problems when using regression or account analysis techniques?

- A. inflation
- B. outliers
- C. mismatched time periods
- D. all of the above**

In the book the following cautionary notes on using regression are mentioned: insufficient data, inconsistent data, missing data, outliers, allocated and discretionary costs, inflation, and mismatched time periods (p. 397). Therefore alternative D is the right answer. (it is "regression OR account analysis" and not "regression AND account analysis")

Question 46.

Processing costs in the billing department of Alfaro Company are a mixture of variable and fixed components. Records indicate that average unit processing costs are € 0.50 per account processed at an activity level of 32,000 accounts. When only 22,000 accounts are processed, the total cost of processing is € 12,500. Given these data, at a budgeted level of 25,000 accounts:

- A. processing costs are expected to total € 8,750.
- B. fixed processing costs are expected to be € 10,400.
- C. the variable processing costs are expected to be € 0.35 per account processed.**
- D. processing costs are expected to total € 13,000.

32,000 units results in € 16,000 costs; 22,000 units results in € 12,500 costs. So a difference of 10,000 units represents a € 3,500 change in costs, which equals € 0.35 per unit. (p. 397). So the cost function would be $TC = 4,800 + 0.35X$. For 25,000 units, this would mean $TC = € 13,550$ (so A and D are wrong) and fixed costs is € 4,800 (so B is also wrong).

Question 47.

When a firm determines the desired cost for a product or service, given a competitive market price, in order to earn a desired profit, the firm is exercising:

- A. target costing.**
- B. life cycle costing.
- C. absorption costing.
- D. competitive costing.

Target costing is described as determining the allowable (i.e. target) cost for the product or service, given a competitive price so the firm can earn a desired profit (p. 431).

Question 48.

Which one of the following is not one of the five steps in TOC analysis?

- A. identify the binding constraint(s) (step 1)
- B. determine the most efficient utilization for each binding constraint (step 2)
- C. identify those responsible for bottlenecks and make adjustments as needed**
- D. redesign the manufacturing process for flexibility and fast throughput (step 5)

Alternative C is not part of the five steps of TOC analysis (p. 439).

Question 49.

Johnson Aerospace has the following costs and expected sales for the coming year. Johnson is considering a number of different methods to determine the price of its product.

	Total costs
Variable manufacturing	€ 2,350,000
Variable selling and administrative	750,000
Plant-level fixed overhead	1,200,000
Fixed selling and administrative	600,000
Batch-level fixed overhead	200,000
Total investment in product line	10,000,000
Expected sales (units)	20,000

If Johnson determines price using a 20% markup of life cycle cost, the price is:

- A. € 262.50
- B. € 306.00**
- C. € 375.00
- D. € 364.29

Life cycle costs cover all manufacturing and selling and administrative costs: $(2,350,000 + 750,000 + 1,200,000 + 600,000 + 200,000) = € 5,100,000$. Divided by the number of units (20,000) is € 255 per unit. With a 20% mark up the price comes to € 306.00 (p. 449)

Question 50.

Please use information provided in previous question.

If Johnson Aerospace b.v. determines price using a 40% markup of full manufacturing cost, the price is:

- A. € 262.50**
- B. € 306.00
- C. € 375.00
- D. € 364.29

Manufacturing cost includes all manufacturing cost (variable, fixed plant and batch level): $(2,350,000 + 1,200,000 + 200,000) = € 3,750,000$. Divided by the number of units (20,000) is € 187.50 per unit. With a 40% mark up comes up to € 262.50 (p. 449).

END OF EXAM