Business and Management: Second-round Sample Tasks for the Open Doors Bachelor's Track

This sample test comprises 35 tasks, including 21 entry-level tasks with a single correct answer (each correct answer is assigned 1 point), 11 intermediate-level tasks with multiple correct answers (the correct answer is assigned 5 points), and 3 advanced-level tasks requiring a detailed answer (the correct answer is assigned 8 points depending on its correctness and completeness). For advanced-level tasks requiring a detailed answer, assessment criteria and a standard answer are provided.

Field of Science 1. Decision-Making in Management

Task 1 Entry level (1 point)

A generalized system of views on the world, nature, society, culture, and their place in the world is called:

- a) attitude
- b) world perception
- c) world outlook
- d) worldview

Answer: d

Task 2 Entry level (1 point)

A conscious motive that drives a person to achieve a goal due to its personal significance and emotional appeal is commonly referred to as:

- a) interest
- b) needs
- c) content
- d) form

Answer: a

Task 3 Entry level (1 point)

The complex of interacting elements is called:

- a) system
- b) principle
- c) value
- d) norms

Answer: a

Task 4

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Intermediate level (5 points)

A graduate student is writing an essay on how scientific knowledge differs from other types of cognitive activity. Select all features that are specific to scientific knowledge from the list below.

- a) is based on the experience of everyday life
- b) is aimed at obtaining knowledge previously unknown to humankind
- c) uses special methods
- d) assumes compliance with the purpose and means
- e) regulated by social norms

Answer: b, c

Task 5 Intermediate level (5 points)

Every morning, Anna watches a Latin American television series. Identify the features of this cultural product that justify its classification as mass culture:

- a) elitism
- b) anonymity of the authors
- c) accessibility
- d) entertainment character
- e) deep philosophical ideas

Answer: c, d

Field of Science 2. Strategic Management

Task 1 Entry level (1 point)

Who categorized management functions into general—applicable to any area of activity—and specific—pertaining directly to enterprise management?

- a) F. Taylor
- b) H. Fayol
- c) E. Mayo
- d) M. Weber

Answer: b

Task 2 Entry level (1 point)

A special type of management activity, through which the subject of management influences the managed object, is called:

- a) the process of management
- b) the function of management
- c) the system of management
- d) the model of management

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Answer: b

Task 3 Entry level (1 point)

What is meant by the external environment of an organization?

- a) a set of elements and factors surrounding the company that have a direct impact on the process and conditions of its operation
- b) factors that directly affect the operations of the organization and are directly influenced by the operations of the organization
- c) conditions and factors that arise independently of the activities of the organization and have a significant impact on it
- d) factors that may not have a direct, immediate effect on operations, but affect them

Answer: c

Task 4 Intermediate level (5 points)

Select the management principles proposed by Henri Fayol from the list of statements below:

- a) subordination of common interests to individual interests
- b) subordination of individual interests to common ones
- c) priority of interests
- d) multi-direction
- e) fairness
- f) coincidence of goals

Answer: b. e

Task 5 Intermediate level (5 points)

Select traditional management functions from the list below:

- a) planning
- b) alignment
- c) synchronization
- d) impact
- e) handling
- f) motivation

Answer: a, f

Field of Science 3. Organizational Behavior and Human Resource Management

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Task 1 Entry level (1 point)

What are the two main forms of social control identified in social studies?

- a) moral and physical
- b) natural and artificial
- c) internal and external
- d) violent and nonviolent

Answer: c

Task 2 Entry level (1 point)

What measure enables an individual who has violated social norms to reintegrate into society and lead a full life?

- a) recreation
- b) rehabilitation
- c) restoration
- d) isolation

Answer: b

Task 3 Entry level (1 point)

What is NOT considered to be an element of self-control?

- a) communication
- b) public opinion
- c) sanction
- d) individual consciousness

Answer: a

Task 4

Intermediate level (5 points)

Sergey has turned 15 years old. Identify from the list below the conditions under which he is legally permitted to enter into an employment contract according to the Labor Code of the Russian Federation.

- a) written consent from parents or legal guardians
- b) engagement in light work that does not adversely affect health or moral development
- c) a health condition that permits coping with physical exertion
- d) authorization from the guardianship and trusteeship authority
- e) work that does not interfere with the completion of the general education program
- f) employment during holidays and weekends that does not impede educational activities

Answer: b, e

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Task 5 Advanced level (8 points)

The Norma company specializes in the development and production of innovative gadgets. The management has identified a problem of low employee motivation, which has negatively impacted labor productivity. Propose three specific measures for the management to enhance employee motivation based on Herzberg's Two-Factor Theory. For each proposed measure, justify your choice by specifying whether it addresses hygiene factors or motivators.

Note: A complete solution must include your method and reasoning. Providing the final answer alone will not suffice.

Solution

Reasoning (3 points). According to Herzberg's Two-Factor Motivation Theory, employee motivation is influenced by two categories of factors:

Hygiene factors: These factors do not directly increase motivation but, if absent or inadequate, lead to dissatisfaction. Examples include salary, working conditions, relationships with colleagues and management, company policies, and workplace safety.

Motivational factors: These factors actively contribute to increasing motivation. They encompass achievements, recognition, responsibility, opportunities for professional development, and engaging or meaningful work.

Selection of events (2 points). Three measures to enhance employee motivation are:

- 1. Implementation of a recognition and rewards system: Developing a framework for awarding employees based on their achievements and publicly expressing appreciation for their performance. This measure targets motivational factors such as recognition and achievement.
- 2. Provision of opportunities for professional development: Introducing training programs, enabling access to courses, and encouraging participation in conferences and seminars. This addresses motivational factors, including opportunities for professional growth and engagement in meaningful work.
- 3. Fostering a team-oriented environment: Promoting teamwork through corporate events, collaborative projects, and mentoring programs. This measure influences hygiene factors by improving relationships among colleagues, as well as motivational factors like achievement and recognition.

Justification (3 points). The introduction of a recognition and reward system will help strengthen employees' self-confidence, as well as increase their motivation to achieve new goals. Providing opportunities for professional growth will allow employees to feel their importance and confidence in the future. Fostering an atmosphere of team spirit will enhance interpersonal relationships among employees, thereby creating a more comfortable and efficient work environment.

Assessment Criteria

Overview (understanding Herzberg's Two-Factor Motivation Theory, including correct definitions of hygiene and motivation factors and their impact on employee motivation) – 3 points.

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Selection of measures (identification of three motivation-enhancing measures based on Herzberg's theory) – 2 points.

Justification of the choice (providing a valid explanation of how each activity affects specific hygiene or motivation factors) – 3 points.

Field of Science 4. Business Analytics and Digital Transformation of Business

Task 1 Entry level (1 point)

A taxi firm has 15 cars available at the moment: 2 red, 9 yellow and 4 green ones. One of the cars, which happens to be the closest to the customer, is on a call. What is the probability that the yellow cab will arrive at the order?

- a) 0,06
- b) 0,59
- c) 0,6
- d) 0,61

Answer: c

Task 2 Entry level (1 point)

What is a computer network?

- a) A system that connects all possible devices to the most important information-rich software
- b) A system that provides data exchange between devices or software
- c) A system that is formed by various devices and their software products that are used for economically important tasks
- d) A system that has connections and exchanges the most important data

Answer: b

Task 3 Entry level (1 point)

What are tables and graphs used for in statistics?

- a) To publish data
- b) To visualize data
- c) To store data
- d) To present data

Answer: b

Task 4 Intermediate level (5 points)

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An agricultural firm buys large hen eggs from two households. In the first household, 40% of the eggs are classified as the highest category, while in the second household, 20% are of the highest category. Overall, 35% of the eggs purchased belong to the highest category.

What is the probability that the eggs purchased from this agricultural firm will be from the first household? What is the probability that the eggs purchased will be of the highest category and from the first household?

- a) 0,75
- b) 0,6
- c) 0,65
- d) 0,12

Answer: a, d

Task 5 Advanced level (8 points)

The company has 15 branches. Between every pair of branches, there is either a communication link or there is none. It is known that for branch M, there exist three branches that do not communicate with each other pairwise, but each communicates with branch M. What is the maximum possible number of communication links between the branches in the company?

Solution

Reasoning (3 points).

Consider branch M. By convention, there are branches N, O, and P, which are connected to M but pairwise not connected to each other. This means that O and P are not connected to N.

Now consider branch N. According to the same condition, there must be three branches—say, A, B, and C—that are each connected to N but pairwise unconnected. These branches may include branch M, but that is not essential to the argument. This leads to the absence of an additional three links: AB, AC, and BC.

Formula (2 points). The total possible communication in the company is determined by the formula: $K = \frac{1}{2}$ ' n ' (n – 1), where K is the number of communications, and n is the number of branches.

Calculations (3 points). $K = \frac{1}{2}$ ′ 15 ′ (15 – 1) = 105. Total roads satisfying the condition of no more than 105 - 6 = 99 communication links.

Answer. The maximum number of communication links is 99.

Assessment criteria

Reasoning – 3 points. Formula – 2 points. Calculations – 3 points.

Field of Science 5: International Business and Management

Task 1



Entry level (1 point)

The minimum consumer basket in the United States costs \$500. Determine the cost of an equivalent basket in Russia, given that the nominal exchange rate is 34 roubles per US dollar and the real exchange rate—which reflects how many times prices in Russia are lower than in the United States—is equal to 2.

- a) 8500
- b) 17000
- c) 6500
- d) 20000

Answer: a

Task 2 Entry level (1 point)

Net exports amounted to \$30 billion, while imports were \$90 billion. Calculate the value of exports.

- a) -\$60 billion.
- b) \$3 billion.
- c) \$60 billion.
- d) \$120 billion.

Answer: d

Task 3 Entry level (1 point)

The totality of market relations between countries based on the international division of labour stands for:

- a) International economic relations
- b) world market
- c) international trade
- d) foreign trade policy of the state

Answer: b

Task 4 Intermediate level (5 points)

The population of the country saves 40% of each additional unit of disposable income, with autonomous consumption amounting to 100 billion dollars. Investment expenditures are I = 300 billion dollars. Government purchases of goods and services - G = 900 billion dollars. Exports exceed imports by 200 billion dollars. Determine the equilibrium volume of production and the value of the Keynesian multiplier for a balanced government budget.

- a) 2400
- b) 4800
- c) 5,5
- d) 2,5

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Answer: a, d

Task 5 Intermediate level (5 points)

Which of these factors contribute to globalization? Select all that apply.

- a) the development of transport technologies
- b) the rise of nationalism and protectionism
- c) rising prices for goods
- d) the development of information technology

Answer: a, d

Field of Science 6. Management of Technology and Innovation

Task 1 Entry level (1 point)

Which of the following waves are recognized in large cycles of Kondratiev's conjuncture?

- a) upward and downward
- b) synchronous and asynchronous
- c) single and multiple
- d) stable and unstable

Answer: a

Task 2 Entry level (1 point)

According to the degree of change, innovations can be classified as:

- a) technological, industrial, economic, trade, social, and management innovations
- b) radical, improving, modifying innovations
- c) single, diffuse innovations
- d) local, systemic, strategic innovations

Answer: b

Task 3 Entry level (1 point)

The ability to develop new ideas and to discover new ways of looking at problems and opportunities is called:

- a) entrepreneurship
- b) innovation
- c) creativity
- d) creative thinking

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Answer: c

Task 4 Intermediate level (5 points)

Which of the following are examples of environmental innovations? Select all that apply.

- a) transformation of ownership relations, distribution of profits
- b) creation of generations of environmentally friendly machine systems, waste-free technologies, and environmental monitoring tools
- c) transformation of family relations
- d) development of the principles of an innovative economy, a national innovation system
- e) innovations in the economic structure
- f) use of renewable energy sources; energy conservation

Answer: b, f

Task 5 Intermediate level (5 points)

What distinguishes an innovative project from an investment project? Select all that apply.

- a) a higher degree of uncertainty
- b) higher probability of obtaining high profits
- c) availability of scientific and technical developments
- d) involvement of unique resources in the implementation of projects

Answer: a, d

Field of Science 7: Entrepreneurship

Task 1 Entry level (1 point)

What are the main forms of entrepreneurship?

- a) private, general, state
- b) individual, partnership, corporate
- c) individual, joint

Answer: b

Task 2 Entry level (1 point)

Which of the following is not a characteristic feature of entrepreneurial activity?

- a) creative potential of society
- b) independence and autonomy of economic entities operating within the framework of legal norms
- c) economic interest aimed at making a profit

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Answer: a

Task 3 Entry level (1 point)

The existence of a market economy requires:

- a) freedom of choice for producers to make decisions
- b) prohibition of competition
- c) absence of private ownership of the means of production

Answer: a

Task 4 Intermediate level (5 points)

Which of the following are essential characteristics of a legal entity? Select all that apply.

- a) engage in commercial activities without state registration
- b) ability to act in property turnover on its own behalf
- c) ability to act in trade turnover on its own behalf
- d) cannot have separate property
- e) ability to be liable for obligations with its property

Answer: b, e

Task 5 Advanced level (8 points)

If a company spends 600 thousand rubles per month on renting premises and equipment, 900 thousand rubles on employee salaries, 1 million rubles on raw materials and supplies, and sells products for 3.5 million, then the profit will be:

Note: A complete solution must include your method and reasoning. Providing the final answer alone will not suffice.

Solution

Formula (3 points). Profit = Income - Expenses.

Income refers to all monetary inflows received over a specified period.

Expenses refer to all monetary outflows incurred during the same period.

Calculations (3 points). Expenses = 600 thousand rubles + 900 thousand rubles + 1 million roubles=2,500 thousand rubles.

Profit = 3.5 million - 2.5 million = 1 million rubles.

Answer: The profit amounts to 1 million roubles (**conclusion – 2 points**), which indicates a positive outcome of the company's economic activity.

Assessment criteria

Formula 1 - 3 points. Calculations 2 - 3 points.

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Conclusion 3 - 2 points.