

Business and Management: Second-round Sample Tasks for the Open Doors Postgraduate Track

You will be asked to complete 35 tasks, including:

- 21 entry-level tasks, each correct answer worth 1 point;
- 10 intermediate-level tasks, each correctly answered task worth 4 points;
- 4 advanced tasks (constructed response), each correctly completed task valued at 9–10 points.

Evaluation criteria and standard answers are provided for the advanced tasks requiring constructed responses.

Strategic Management

Task 1

Entry level (1 point)

Which strategy should a company use for a business unit placed in the Star category of the BCG matrix?

- a) analyzing whether the business unit can move to a better category
- b) disposing of it
- c) retaining it
- d) investing for growth
- e) using high cash flows to invest in other business units

Answer: d.

Task 2

Entry level (1 point)

As part of its development strategy, a wholesale company has acquired a chain of retail stores. What is the name of this strategy?

- a) horizontal integration
- b) vertical backward integration
- c) vertical integration forward
- d) related diversification
- e) unrelated diversification

Answer: c.

Task 3

Entry level (1 point)

Which of the following is a basic human need motivating people to act, according to McClelland's Human Motivation Model?

- a) need for self-realization
- b) need for success
- c) need to know the world
- d) need for respect
- e) need for self-discipline

Answer: b.

Task 4

Intermediate level (4 points)

Which characteristics indicate that a company has chosen differentiation as its competitive strategy?

- a) It can spend more on advertising than its competitors.
- b) It gets a premium price for its product.
- c) It highlights special product features that are important to a specific group of customers.
- d) It does not have sufficient resources to serve a broader market segment.
- e) It ensures that the customer recognizes the uniqueness of the product.

Answer: b, e.

Task 5

Intermediate level (4 points)

Which of the following describe the general management functions formulated by Henri Fayol?

- a) planning
- b) personnel management
- c) marketing management
- d) decision-making
- e) organization

Answer: a, e.

Decision-Making in Management

Task 6

Entry level (1 point)

Which PESTEL analysis factor includes an examination of bankruptcy law practices?

- a) political
- b) economic
- c) socio-cultural
- d) technological

e) legal

Answer: e.

Task 7

Entry level (1 point)

Which of the SMART criteria does not align with a company's strategic goal of improving performance by 25-30% by January 1, 2025?

- a) specific
- b) measurable
- c) achievable
- d) realistic
- e) time-bound

Answer: a.

Task 8

Entry level (1 point)

What is a managerial decision?

- a) The key factor in the interaction between the managing and managed systems
- b) An impact on the managed system
- c) Actions causing reasonable changes in the behavior of the managed system
- d) Implementation of an action plan
- e) A manager's intention to change the situation and achieve results

Answer: b.

Task 9

Intermediate level (4 points)

After conducting a SWOT analysis, a company producing art supplies has chosen an ST strategy. Which activities are associated with this strategy?

- a) promoting the company's unique offering of custom-sized canvases based on the capabilities of its equipment
- b) expanding the advertising campaign's target audience based on the widespread growth of interest in art
- c) increasing the share of low-cost assortment items in response to declining household incomes
- d) implementing a mentoring system among employees to combat the decline in manual labor skills
- e) expanding partnerships with the increasing number of creative studios and hobby centers

Answer: a, c.

Task 10

Intermediate level (4 points)

Which of the following are stages of managerial decision-making?

- a) problem detection
- b) identification of relevant factors and conditions
- c) developing a decision
- d) evaluation and decision-making
- e) all of the above

Answer: c, d.

Organizational Behavior and Human Resource Management

Task 11

Entry level (1 point)

Which of the following more precisely describes the means managers use to achieve organizational goals?

- a) power and discipline
- b) people and equipment
- c) resources and power
- d) people, power, and resources
- e) people and resources

Answer: d.

Task 12

Entry level (1 point)

Which stage of an organization's life cycle, according to Ichak Adizes' model, characterizes the transition to premature aging?

- a) infancy
- b) prime
- c) adolescence
- d) early bureaucracy
- e) aristocracy

Answer: c.

Task 13

Entry level (1 point)

How would a classical manager assign employees to specific jobs?

- a) give the best jobs to the most senior employees
- b) allocate employees to positions based on their ability to best perform the required tasks
- c) assign roles according to employees' educational qualifications
- d) assign the job to the employee ready to accept the lowest pay
- e) delegate decision-making to the human resources department

Answer: b.

Task 14

Intermediate level (4 points)

Having the power of mandatory approval means the right to:

- a) give advice to a subordinate.
- b) reject decisions taken.
- c) veto decisions.
- d) adjust the decisions made.
- e) urge amendments to proposed decisions.

Answer: d, e.

Task 15

Advanced level (10 points)

The planned number of production personnel for the company as of March 1, 2025, is 500 FTE (Full-Time Equivalent), including 20 new positions. The average employee turnover rate for the year is 12% of the average number of employees (assumed to be 480 for simplicity).

The average conversion rate of the recruitment funnel for production personnel is 25% (the percentage of candidates who accept a job offer out of all initial applicants; option 1).

Of those who accept a job offer, 10% either decline before starting, do not start, or quit within the first week of employment.

Calculate the number of initial applicants needed to fill all the vacancies, given the current personnel turnover and selection funnel parameters. Additionally, determine the change if the funnel conversion rate improves to 30% (option 2) as a result of optimizing the attraction and selection process.

Please note that the evaluation will consider your problem-solving process; providing only the final answer is not sufficient.

Solution:

1. Let us calculate the number of vacancies that need to be filled:

- 20 new vacancies
- vacancies resulting from the turnover: 12% of 480 = 57.6, which rounds to 58 vacancies

Total: $58 + 20 = 78$ vacancies. This calculation assumes all production workers are full-time. (3 points)

2. Let us find the number of job offers (X) needed for 78 vacancies to be filled:

$X \times 0.9 = 78$; therefore, $X = 78/0.9 = 86.7$, which rounds to 87 job offers (3 points)

3. Let us determine the number of initial applicants (Y) needed, given the required number of job offers and an average recruitment funnel conversion rate of 25%.

(option 1): $Y \times 0.25 = 87$; therefore, $Y = 87/0.25 = 348$ initial applicants (2 points)

4. Find the number of initial applicants at an improved funnel conversion rate of 30% (option 2):
 $87/0.30 = 290$ initial candidates (2 points)

Answer: If the selection parameters remain the same, recruiters need to attract at least 348 candidates to fill all production worker vacancies by March 1. However, if the funnel conversion rate increases to 30%, it will only be necessary to attract 290 initial applicants.

Evaluation criteria:

Calculating the number of vacancies is worth 3 points.

Calculating the number of job offers is worth 3 points.

Calculating the number of primary candidates for Option 1 is worth 2 points.

Calculating the number of primary candidates for Option 2 is worth 2 points.

Entrepreneurship

Task 16

Entry level (1 point)

According to Philip Kotler, which is the goal of marketing?

- a) product development
- b) best price calculation
- c) productive advertisement campaigns
- d) satisfaction of customers' needs and wants
- e) high profitability of the business for its owners

Answer: d.

Task 17

Entry level (1 point)

Which of the following represents goods and services in monetary evaluation that can be bought within a specific time under specific conditions?

- a) market capacity
- b) market saturation
- c) market share
- d) target market
- e) positioning

Answer: a.

Task 18

Entry level (1 point)

According to the theory of tax differentiation, investors prefer:

- a) a tax policy that minimizes the taxation of dividends.

- b) capital gains to dividend payments.
- c) dividend payments to capital gains.
- d) stable dividend policy.
- e) buyback of shares.

Answer: b.

Task 19
Intermediate level (4 points)

Investment decisions are those related to:

- a) finding financial resources for investment.
- b) upgrading the physical infrastructure.
- c) Identifying potential investors.
- d) developing new types of activities.
- e) formation of working capital.

Answer: b, d.

Task 20
Advanced level (10 points)

A cannery is considering purchasing a vegetable preserve production line for \$3,500. The line has a service life of 4 years, during which it will generate annual revenue of \$1,000. After its service life ends, the machine is expected to be sold for \$500. Determine the feasibility of purchasing this machine with an annual interest rate of 2%.

Please note that the evaluation will consider your problem-solving process; providing only the final answer is not sufficient.

Solution:

$$NPV = -I_0 + \sum_{i=1}^3 \frac{\text{annual flows}}{(1+r)^i} + \frac{\text{annual flows} + \text{revenue from sales}}{(1+r)^4} \quad (4 \text{ points})$$

$$NPV = -3500 + \frac{1000}{(1+0,02)} + \frac{1000}{(1+0,02)^2} + \frac{1000}{(1+0,02)^3} + \frac{1000+500}{(1+0,02)^4} = -3500 + 4269,65141 = 769,651412 \text{ (to the nearest \$)} \quad (5 \text{ points})$$

NPV > 0, therefore, it is advisable to purchase the production line (1 point)

Answer: NPV > 0, therefore, it is advisable to purchase the production line.

Evaluation criteria:

Providing the formula is worth 4 points.

The calculations are worth 5 points.

Drawing the correct conclusion is worth 1 point.

Business Analytics and Digital Transformation of Business

Task 21

Entry level (1 point)

What is a business process?

- a) set of business functions
- b) commercial activities conducted for profit
- c) distribution of responsibilities, powers, and functions within an organization
- d) sequence of actions to transform inputs into outputs satisfying the consumer
- e) any activity on a corporate scale

Answer: d.

Task 22

Entry level (1 point)

Which notation allows you to describe the structure of a business process system, display the composition of processes at the same level of abstraction, and show the relationships between them using a diagram?

- a) BPMN
- b) DFD
- c) EPC
- d) IDEF0
- e) all of the above

Answer: d.

Task 23

Entry level (1 point)

Enterprise architecture is:

- a) management style.
- b) conceptual structure of system organization.
- c) software used to systematize business processes and store data in an organization.
- d) the art of designing and building business centers and industrial buildings.
- e) a unified system that describes existing organizational structures, goals, and achievement indicators, the line of products/services that generate income, as well as the infrastructure (software, hardware, equipment) used in operations.

Answer: e.

Task 24

Intermediate level (4 points)

Which problems does the Ishikawa diagram (fishbone) help solve?

- a) increasing the level of manageability of business processes
- b) showing the cause-and-effect relationship between processes and results
- c) identifying potential sources of the problem
- d) assessing the degree of influence of problems on the result
- e) generating a complete set of QMS documentation

Answer: c, d.

Task 25
Advanced level (10 points)

A corporate website receives 30,000 visitors per month. The win rate is 15%, and the average purchase amount is 3,000 RUR. The company spends 1,000,000 RUR monthly on marketing to maintain this level of visitor traffic and sales.

Write the relevant formulas and calculate:

- the number of sales (the number of visitors converted to buyers)
- sales volume (in RUR)
- ROMI

Explain what the ROMI values mean.

Please note that the evaluation will consider your problem-solving process; providing only the final answer is not sufficient.

Solution:

Let us calculate the number of sales (2 points).

Formula: number of sales = number of visitors × win rate

$$\text{number of sales} = 30,000 \times 0.15 = 4,500$$

Let us calculate the volume of sales (2 points).

Formula: volume of sales = sales number × average purchase value

$$\text{volume of sales} = 4,500 \times 3,000 = 13,500,000 \text{ RUR}$$

ROMI (4 points)

Formula: $\text{ROMI} = (\text{volume of sales} - \text{marketing costs}) / \text{marketing costs}$

$$\text{ROMI} = (13,500,000 - 1,000,000) / 1,000,000 = 12.5$$

ROMI Explanation: this ROMI value indicates that each ruble spent on marketing generates 12.5 RUR in revenue for the company, which signifies a highly favorable impact of the marketing actions. (2 points)

Evaluation criteria:

Calculating the number of sales is worth 2 points.

Calculating the sales volume is worth 2 points.

Calculating the ROMI is worth 4 points.

Explaining the ROMI value is worth 2 points.

International Business and Management

Task 26

Entry level (1 point)

Who is the author of the world's most authoritative study on the competitiveness of countries and nations?

- a) Joseph Schumpeter
- b) Michael Porter
- c) John Dunning
- d) Adam Smith
- e) Paul Krugman

Answer: b.

Task 27

Entry level (1 point)

What is the process called that is driven by intensification and changes in international competition, saturation of local markets, and the need for a firm to expand into foreign markets?

- a) vertical integration
- b) strategic planning
- c) diversification
- d) internationalization
- e) horizontal integration

Answer: d.

Task 28

Entry level (1 point)

International franchising is:

- a) a special agreement under which a company sells its management experience and develops management system of a foreign company
- b) a special form of license in which a company allows another company to use its entire business system under its brand name for a fee
- c) an agreement under which a company allows a foreign company to use its technology, patents, trademarks, copyrights for a fee (royalty)
- d) a system of doing business when a company hires most of its staff in foreign branches from among local residents

- e) an agreement under which a company transfers part of its production and transport equipment to a foreign partner for temporary use for a certain fee

Answer: b.

Task 29

Intermediate level (4 points)

Which two blocks of Osterwalder's business model characterize the financial component of the business?

- a) key resources
- b) value proposition
- c) cost structure
- d) revenue streams
- e) sales channels

Answer: c, d.

Task 30

Intermediate level (4 points)

Which two basic terms of delivery of goods include payment for the primary transportation?

- a) CIF
- b) DDU
- c) EXW
- d) FOD
- e) FCA

Answer: a, b.

Innovation Management

Task 31

Entry level (1 point)

Which factor underlies the long waves of industrial market conditions lasting from 40 to 60 years?

- a) replacement of infrastructure assets, such as buildings, structures, utility lines, and transmission devices
- b) replacement of the equipment assets, such as machinery and vehicles
- c) market changes in relation to certain types of industrial products
- d) change of workforce generations
- e) change of educational systems

Answer: a.

Task 32

Entry level (1 point)

Who authored the concept of dynamic business cycles, where cyclicity is viewed as a pattern of economic growth, with investment in fixed capital driven by innovation as the primary force behind growth?

- a) Ichak Adizes
- b) Karl Marx
- c) Joseph Schumpeter
- d) Adam Smith
- e) Nikolai Kondratiev

Answer: c.

Task 33

Entry level (1 point)

To which block does the process technology for all organizational functions and projects belong?

- a) resource block
- b) product block
- c) function block
- d) organizational block of the production and economic system
- e) control block

Answer: d.

Task 34

Intermediate level (4 points)

Which of the following innovations are product innovations?

- a) first digital camera
- b) first system for transporting goods using a barcode
- c) first use of discount cards in stores
- d) a new system for advanced training at the enterprise
- e) launch of nanocellulose (biodegradable packaging) production for use in the organization's operations

Answer: a, e.

Task 35

Advanced level (9 points)

A company is preparing to introduce a new product to the market. Its analysis of the risk of buyers' reluctance to switch to the new product showed the following:

- probability of risk occurrence (on a scale from 1 to 5) is 3 points;
- the severity of consequences if the undesirable event takes place (on a scale from 1 to 5) is 5 points.

Calculate the risk index. Based on this index, determine and describe the impact and level of the risk. Identify and explain the appropriate risk treatment method.

Please note that the evaluation will consider your problem-solving process; providing only the final answer is not sufficient.

Solution:

Risk index = probability of occurrence × severity of consequences = 15 (2 points)

This risk value points to a significant impact, meaning that these risks will lead to increased work duration. (2 points)

Additionally, the value indicates an intolerable level of risk, making it a primary concern: risk treatment should continue until the risk is reduced to an acceptable level. Continuous monitoring and review are necessary. (2 points)

The appropriate way to handle this risk is through risk mitigation, which involves implementing preventative measures to reduce either the likelihood of the risk occurring or its potential consequences. (3 points)

Evaluation criteria:

Calculating the risk index is worth 2 points.

Determining and characterizing the degree of risk impact is worth 2 points.

Defining and characterizing the risk level is worth 2 points.

Defining and characterizing the risk treatment method is worth 3 points.