

## **ПРОГРАММА ВСТУПИТЕЛЬНОГО ИСПЫТАНИЯ**

для поступающих на основные образовательные программы магистратуры  
«Менеджмент (Master in Management – MIM)», «Корпоративные финансы (Master in Corporate Finance - MCF)», «Бизнес-аналитика и большие данные (Master in Business Analytics and Big Data – MiBA)» по направлению подготовки 38.04.02 «МЕНЕДЖМЕНТ»,  
на образовательную программу «Управление умным городом (Master in Smart City Management - MSC)»  
по направлению подготовки 38.04.04 «ГОСУДАРСТВЕННОЕ МУНИЦИПАЛЬНОЕ УПРАВЛЕНИЕ»

**по предмету «ДЕЛОВЫЕ КОММУНИКАЦИИ»**

### **Program for “Business Communications” Entry Examination**

For master programs: “Master in Management” (MIM),  
“Master in Corporate Finance” (MCF),  
“Master in Business Analytics and Big Data” (MiBA),  
“Master in Smart City Management” (MSC)

## **SECTION I. THE CONTENT OF EXAMINATION**

Entry examination (EE) comprises of the written part (30%) and oral part (interview) (70%).

The examination is performed with the use of distant technologies (online) in a synchronous mode.

### **WRITTEN PART**

The goal of the written part of the EE is to assess the level of the candidates' prerequisite understanding of the program-specific theory and level of possession of the program specific vocabulary in the program language that is necessary for successful studies according to the master program requirements.

Written part implies answering to 10 questions in total.

There are 4 sets of questions and 4 packages of themes - with reference to the corresponding Master Program.

A candidate is to answer 10 questions according to the following principle (please, see Appendix 1):

- ✓ Those candidates who applied solely to MIM choose any 10 questions from 1-4 set;
- ✓ Those candidates who applied to MIM and/or MSC programs choose any 10 questions from 1-4 sets, provided that not less than 5 questions should be chosen from the Set 2;
- ✓ Those candidates who applied (also) to MiBA choose any 10 questions from 1-4 sets, provided that not less than 5 questions should be chosen from the Set 3;
- ✓ Those candidates who applied (also) to MCF choose any 10 questions from 1-4 sets, provided that not less than 5 questions should be chosen from the Set 4;
- ✓ Those candidates who applied (also) to MSC and MCF are to choose 5 questions from the Set 2 and 5 questions from the Set 4 (therefore they are not allowed to choose from the Set 1 and the Set 3).
- ✓ Those candidates who applied (also) to MSC and MiBA are to choose 5 questions from the Set 2 and 5 questions from the Set 3 (therefore they are not allowed to choose from the Set 1 and the Set 4).
- ✓ Those candidates who applied to both: MiBA and MCF (the same if they also applied to

MiM and/or MSC) are to choose 5 questions from the Set 3 and 5 questions from the Set 4 (therefore they are not allowed to choose from the Set 1 and the Set 2).

In case a candidate, chooses a question in such a way that contradicts the principle stated above, he/she gets 0 points for an answer to this question (even in case the answer is correct).

Independently of the number of applications written part will be performed only once, according to the principle mentioned above.

Questions for the written part are based on one or more of the following themes.

**Written part themes (for more detailed instructions on themes coverage, please, see Appendix 2).**

#### *Package 1. Management*

1. Managers and organizations: the terms of organization, firm, management, efficiency in the broad and narrow sense. The emergence and development of professional management. Management decision-making.
2. The concept of strategy and strategic management. Corporate, competitive and functional strategies. Modern views on strategic management. Reasons, advantages and disadvantages of vertical integration and diversification.
3. External environment of organization: levels, basic parameters, the organization–environment relationship. Managing in a global environment.
4. Concepts of organizational growth, organizational development, organizational changes.
5. The concepts of leaders and leadership; leadership and power. Evolution of views on the phenomenon of leadership. Practical aspects of leadership. Behavioral approach. Contingency approach.
6. Organizational structures. Organizing the vertical structure. Horizontal coordination. Designing adaptive organization.
7. The concepts of motivation. Basic theories of motivation. Innovative ideas for motivating. Job design for motivation.
8. Definition of entrepreneurship. Characteristics of entrepreneurs.
9. Managing ethics and responsibility. Corporate social responsibility and sustainability.
10. Leading teams: types, roles and processes. Types of teams. Team characteristics. How to make team effective.
11. Definition of marketing. The role of marketing in the organization's strategy. Key effective marketing strategies.
12. Managing quality and performance. Total quality management. A Balanced Scorecard.

#### *Package 2. Urban Management*

1. Public sector: definition and its main characteristics. Peculiarities of public sector management compared to private sector.
2. Public-private partnership: the concept and examples.
3. Economic growth and economic development: concepts and examples.
4. The essence of digital economy: stakeholders and examples of its implementation for urban development.
5. The role of state regulation in urban development – pros and cons.
6. Markets and industries in urban economy – definitions, their intersections and examples. The role of government in their development.
7. Social policy – definition, structure, examples. Role of government in social sector

development.

8. Sustainable development – concept and its implementation. Role of government and business.
9. The role of macroeconomic environment for effective urban development.
10. Competitive markets and monopolies – definition, examples and state regulation.

#### *Package 3. Data Analytics*

1. Data types and sampling.
2. Data storage and databases.
3. Data governance.
4. Big data concept.
5. Business Intelligence
6. Classical hypothesis testing: types and procedures.
7. Econometrics.
8. Data-driven decision making.
9. Machine learning.
10. Deep learning.

#### *Package 4. Finance*

1. Residual income model for a company's valuation: economic meaning, practical implementation and limitations.
2. Financial analysis of a company's performance: indicators and the main methods of analysis
3. Target criteria of working capital management. The working capital optimization problem of a company with respect to industrial specifics.
4. The main principles and methods of accounting for companies' manufacturing costs.
5. Board of directors and financial decision-making in a company.
6. The role of corporate governance in mitigating the agency problem in the context of financial decisions.
7. Tasks and issues of managing a company's free cash flow.
8. The role of financial and non-financial performance measures in management accounting.
9. Financial analysis of a company's sources of financing: the main indicators and criteria for choosing sources of financing.
10. Types of a company's investment decisions. The main principles and approaches to analyzing investment alternatives.

#### **Examples of questions from each set of questions:**

##### **Set 1:**

1. Which of the following is NOT in line with theory X by Mc Gregor?
  - A. people do not like to work and try to avoid work whenever possible
  - B. people are mainly motivated by money and the threat to their security
  - C. in normal situation, people are motivated by the desire to fulfill their potential
  - D. people need to be forced to put effort into work

2. Which of the following is a task environment for a recruiting agency providing recruitment services?
  - A. dynamics of employers' demand for the services of recruiting agencies
  - B. intensity of competition between recruiting agencies for the most demanded by employers workers
  - C. the law “On Employment in the Russian Federation”, which limits the ability of recruiting agencies to provide workers “for rent”
  - D. brain drain from the country
3. Goal of the company – “to acquire fast growing startup at Asian market” is an example of
  - A. Operational goal
  - B. Strategic goal
  - C. Tactical goal

**Set 2:**

1. What are the main points of difference between public sector management and private sector management?
  - A. Profit motive
  - B. Public responsibility
  - C. Focus on market failures
  - D. All of those
2. A natural monopoly is a market structure characterised by
  - A. Economies of scale
  - B. A government contract
  - C. Operation in emerging markets
  - D. Low entry barriers in the industry
3. What are the key stakeholders for smart city development?
  - A. Government
  - B. Media
  - C. Business (industry)
  - D. Citizens

**Set 3:**

1. You have recorded the weights of five men (in kilograms) as follows: 70, 75, 80, 85, and 90. What is the estimated value of the weight of these men?
  - A. 80
  - B. 75
  - C. 85
  - D. 82.5
2. You have recorded the weights of five men (in kilograms) as follows: 70, 75, 80, 85, and 90. What is the dispersion of this sample?
  - A. 50
  - B. 62.5
  - C. 55

D. 68.5

3. You are working for a mobile app company that offers a premium subscription for enhanced features. The company is interested in increasing subscription revenue and reducing churn. To achieve this, they want to build a predictive model to determine which users are likely to purchase a subscription.
- Your task is to select the most appropriate approach from the following options:
- A. Isolation Forest
  - B. Linear regression
  - C. Decision tree
  - D. Cluster analysis

**Set 4:**

1. Sophia is considering investing RUR 1 mln for a 5-year period. She could deposit it in a building society, earning 8% p.a. compound interest. She also has been offered an alternative: investing in a project that is expected to generate net cash inflows of RUR 300 thousand for each of the first three years, RUR 250 thousand in the fourth year and RUR 100 thousand in the fifth.
- Find the net present value of the project and comment on your result.

2. Financial analyst has gathered the following data:

	<b>RUR thsd</b>
Cash payment of dividends	35
Increase in accounts payable	4
Increase in tax payable	5
Net income	80
Purchase of land	24
Sale of equipment	28
Sale of preferred stock	18

Find the volume of the company's investment cash flow.

3. Choose the correct answer. Balance-sheet provides information on a company's:
- A. Liquidity
  - B. Marginality
  - C. Internal controls.

**ORAL PART (Interview)**

The goal of the *oral part* of the EE is to assess the candidates' readiness for professional oral communication in the program language, personal competencies and skills.

Candidates are assessed by 3 key criteria/competency:

- *Motivation to Achieve Results* (Competency 1) requires that the candidate strives for results and is capable to adapt his/her priorities in the process of performance. The candidate

plans actions, pursues goals and can articulate those when making choices. The basis for assessment – presentation of candidate’s motivation to enter the programs.

- *Effective Communication* (Competency 2) requires well-developed communication skills and an ability to express one’s thoughts clearly and confidently, to transmit information precisely, to present arguments effectively, and to possess an ability to persuade others.

- *Analytical Abilities* (Competency 3) require an ability to locate urgent or potentially important areas of research, an ability of profound analysis and/or of development of a deep interest in analytical work. The candidate needs to demonstrate analytical thinking – ability to break down complex information into its parts to understand its underlying structure, as well as critical thinking – ability to analyze facts objectively and form a judgement.

## SECTION II. RECOMMENDED LITERATURE

### For all programs:

Up-to-date business press (e.g., from such magazines like Vedomosti, HBR, Forbes) and program area related publications and articles.

### Package 1

- Daft, R. L., Benson, A. 2016. Management. Andover, UK: Cengage Learning.
- Daft, R.L., Management, US: South-Western Cengage Learning (any edition after 2010)
- Drucker, P. F. 2008. The Essential Drucker: The Best of Sixty Years of Peter Drucker's Essential Writings on Management. Harper Business.
- Goold, M., Campbell, A. March. 2002. Do You Have a Well-Designed Organization? Harvard Business Review.
- Kotler, P., Keller, K.L. Marketing Management, Prentice Hall (any edition after 2010)
- Porter, M. E., Kramer, M. R. 2011. Creating shared value. Harvard Business Review. Vol. 89, Issue 1–2. P. 62–77. 2
- Warner, M. (Ed.) 2002. International Encyclopedia of Business and Management. Vol. 1-8. 2<sup>nd</sup> ed. Thomson Learning.

### Package 2

- Albino, V., Berardi, U., & Dangelico, R. M. (2015). Smart cities: Definitions, dimensions, performance, and initiatives. *Journal of Urban Technology*, 22(1), 3–21.
- Augusto J.C. (ed.) (2021). *Handbook of Smart Cities*. Springer Nature.
- Boyne, G. A. (2002). Public and private management: what's the difference? *Journal of Management Studies*, 39(1), 97–122.
- Capello, R., & Nijkamp, P. (2004). *Urban Dynamics and Growth : Advances in Urban Economics*. Elsevier Science Ltd.
- Glaeser E. L. (2011). *Triumph of the city: how our greatest invention makes us richer, smarter, greener, healthier, and happier*. Penguin Press.
- Jacobs, J. (1993). *The death and life of great American cities*. Vintage Books.
- Kahn, Matthew. (2006). *Green Cities: Urban Growth and the Environment*. Brookings
- Lynn, T., Rosati, P., Conway, E., Curran, D., Grace, F., Colm, F., & O’Gorman, C. (2022). *Digital Towns Accelerating and Measuring the Digital Transformation of Rural Societies and Economies*. Palgrave Macmillan Cham.
- Obeng-Odoom, Franklin. (2016). *Reconstructing Urban Economics: Towards a Political Economy of the Built Environment*. Zed.
- Quigley, John M. (2008). *Urban economics*. The New Palgrave Dictionary of Economics (2nd ed.).
- Sadik-Khan J., & Solomonow S. (2016). *Streetfight: handbook for an urban revolution*. Viking.
- Stiglitz, J. and Rosengard, J. (2015). *Economics of the Public Sector*. Fourth Edition. W. W. Norton & Company.
- Аузан, Василий (ред.). (2017). *Стимулы. Парадоксы. Провалы. Город глазами экономистов (сборник)*. М.: Стрелка Пресс.

### Package 3

- Andriy Burkov. The Hundred-Page Machine Learning Book. 2019. Andriy Burkov. The Hundred-Page Machine Learning Book. 2019
- DAMA International. The DAMA Guide to the Data Management Body of Knowledge (DAMA-DMBOK). 2009
- Efraim Turban, Carol Pollard, Gregory Wood. Information Technology for Management: Driving Digital Transformation to Increase Local and Global Performance, Growth and Sustainability. 12th Edition, 2021.
- EMC Education Services, Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data. 1st edition, 2015.
- Foster Provost, Tom Fawcett (2013). Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking.
- Panchanan Das (2019) Econometrics in Theory and Practice.
- Ron Kohavi, Diane Tang, Ya Xu. Trustworthy Online Controlled Experiments: A Practical Guide to A/B Testing. 1st edition, 2020.
- Sarah Boslaugh (2013). Statistics in a Nutshell: A Desktop Quick Reference.

### Package 4

- Бирман, Г. Капиталовложения: Экономический анализ инвестиционных проектов:[пер. с англ.]/Г.Бирман,С.Шмидт.–М.:Юнити-Дана, 2003.–632с.
- Брейли, Р. Принципы корпоративных финансов:[пер. с англ.] / Р. Брейли, С. Майерс. – М.: Олимп-Бизнес, 2006. – 1008с.
- Бригхем, Ю. Финансовый менеджмент. Том 1, 2: [пер. с англ.] / Ю. Бригхем, Л.Гапенски– СПб: Экономическая школа, 2001 (и более поздние издания). – 1094 с.
- Ross S., Westerfield R. Corporate Finance. 10th ed. McGraw Hill, 2012.



### III. METHODOLOGY

The structure of the Entry Examination is the following:

Written part (10 questions)	30 points (%)
Oral part (Interview)	70 points (%)

**Written part** is performed first. Answers are checked using the keys. There is only the one correct answer to each question.

*Procedure for the written part:*

- Written part is performed on the electronic platform approved by SPbU.
- Written part is performed with proctoring.
- Neither hard copy nor electronic/online materials are allowed for usage during examination (including glossaries and vocabularies).
- A candidate is to answer to 10 questions, chosen according to the principle mentioned in the Section I of this “Business Communications” Entry Examination Program.
- A candidate chooses the only one answer from the list within each question. For the questions from Set 3 and Set 4, which do not contain answer options, a candidate, along with an answer itself, should provide a solution to the problem, typing comments in the correspondent blank space.
- Exam duration: 90 minutes.

**Oral part (Interview)** is carried out via video-conference application approved by SPbU (may differ from the one used for the written part) by 2-5 examiners at one time (may include academicians and practitioners or academicians only).

*Procedure for the oral part:*

- Interviews start after a short break following the written part and according to schedule planned by the Admissions office.
  - Length: 20-30 minutes for the interview (including 5 minutes for self-presentation), then after the candidate is dismissed – 2-5 minutes for examiners’ discussion and decision on the grade.
  - The material for discussion is self-selected and home-prepared by the candidate. No extra time for preparation is needed.
  - Interviews are conducted in English.
  - The interview starts with the candidate’s self-presentation (points to be covered: statement of the motivation to enter the selected program and perspective career development that the program offers; formulation of the key interests in the field of the selected program; presentation of a successful case where analytical abilities of a candidate can be demonstrated). Then examiners ask questions related to the declared points and (if needed) on other aspects in order to assess the criteria.
  - To make an interview go smoothly it is highly recommended to a candidate to provide examiners with his/her CV in a written form – in accordance with a form (please, see Appendix 3). CV is not to be assessed, but it helps to illustrate your self-presentation.
- Important!** Please, **do not** indicate your name in your CV. The EE is totally anonymous.
- For a candidate who applied to MiM/MSc program the interview will be supplemented by mini-case analysis. Here are mini-case examples:
    - Discuss what is wrong with the following statistic: the Volvo is the safest car on the road because a recent study has shown that Volvos have the fewest number of accident deaths per mile driven.

- A fast food company is thinking about putting a franchise in an airport. They hire you to see if they should do so.
- A car company is interested in developing a new car. What marketing related issues should it consider before doing so?
- An airline finds that, while its revenues are high, the company is still operating at a loss. What is going on?"
- Independently of the number of applications oral part will be performed only once.

#### IV. ASSESSMENT CRITERIA

**The maximum score for the Entry Examination is 100 % (points).**

Total result is calculated as a sum of points for the written and oral parts.

There are no minimum points for separate parts.

Each part is assessed in points that are further converted in the total score according to the weights:

The written part – 30% (points) of the total score for the Entry Examination.

The oral part – 70% (points) of the total score for the Entry Examination.

##### **Assessment of the written part:**

Each correct answer gives 3 points.

Therefore, the maximum score for the written part (for 10 questions) is 30 points.

##### **Assessment of the oral part:**

##### **Criteria for the oral part:**

##### **№1. Motivation to Achieve Results**

<b>Max points</b>	<b>Competency Level</b>	<b>Description</b>	<b>Candidate's Interview Outcome</b>
5	Excellent	Corresponds to the majority (90 % and up) of the competency definitions	Strong demonstrating of the competency reflected in showcasing of the majority (90% and up) of the required behavioral characteristics.
4	Very Good	Corresponds to more than a half of the competency definitions	The demonstrated strong behavioral characteristics prevail over the number of weak behavioral characteristics.
3	Good	Corresponds to a half of the competency definitions	Demonstration of a strong presence of a half of the required behavioral characteristics and of weak/insufficient presence of the other behavioral characteristics.
2	Next- to- Low ("minimal")	Corresponds to less than a half of the competency definitions	Insufficient demonstration of the majority of the required behavioral characteristics.
1	Low	Doesn't correspond next- to- neither of the definitions of the competency	Demonstrated weak/insufficient level of the competency. No strong points were demonstrated.
0	Absence of any proof	Absence of any demonstrated competency definition	No traces of any required behavioral characteristics were demonstrated.

## № 2. Effective Communication

Max points	Competency Level	Description	Candidate's Interview Outcome
5	Excellent	Corresponds to the majority (90 % and up) of the competency definitions	Strong demonstrating of the competency reflected in showcasing of the majority (90% and up) of the required behavioral characteristics.
4	Very Good	Corresponds to more than a half of the competency definitions	The demonstrated strong behavioral characteristics prevail over the number of weak behavioral characteristics.
3	Good	Corresponds to a half of the competency definitions	Demonstration of a strong presence of a half of the required behavioral characteristics and of weak/insufficient presence of the other behavioral characteristics.
2	Next- to- Low ("minimal")	Corresponds to less than a half of the competency definitions	Insufficient demonstration of the majority of the required behavioral characteristics
1	Low	Doesn't correspond next- to- neither of the definitions of the competency	Demonstrated weak/insufficient level of the competency. No strong points were demonstrated.
0	Absence of any proof	Absence of any demonstrated competency definition	No traces of any required behavioral characteristics were demonstrated.

## № 3. Analytical Abilities

Max points	Competency Level	Description	Candidate's Interview Outcome
5	Excellent	Corresponds to the majority (90 % and up) of the competency definitions	Strong demonstrating of the competency reflected in showcasing of the majority (90% and up) of the required behavioral characteristics.
4	Very Good	Corresponds to more than a half of the competency definitions	The demonstrated strong behavioral characteristics prevail over the number of weak behavioral characteristics.
3	Good	Corresponds to a half of the competency definitions	Demonstration of a strong presence of a half of the required behavioral characteristics and of weak/insufficient presence of the other behavioral characteristics.
2	Next- to- Low ("minimal")	Corresponds to less than a half of the competency definitions	Insufficient demonstration of the majority of the required behavioral characteristics.
1	Low	Doesn't correspond next- to- neither of the definitions of the competency	Demonstrated weak/insufficient level of the competency. No strong points were demonstrated.
0	Absence of any proof	Absence of any demonstrated competency definition	No traces of any required behavioral characteristics were demonstrated.

**Conversion scale:**

Points gained	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Score for the final grade	0	5	10	15	20	25	30	32	35	40	45	50	55	60	65	70

Therefore, the maximum score for the oral part (for 3 criteria) is 70 points.

**Program for “Business Communications”**  
**Entry Examination in 2024**  
**APPENDIX 1**

The principle of choosing 10 questions for a candidate:

<b>A candidate applied to:</b>	<b>Set 1</b>	<b>Set 2</b>	<b>Set 3</b>	<b>Set 4</b>
MIM	+	+	+	+
MSC	+	<b>min 5 are obligatory</b>	+	+
MIM and MSC	+	<b>min 5 are obligatory</b>	+	+
MiBA	+	+	<b>min 5 are obligatory</b>	+
MIM and MiBA	+	+	<b>min 5 are obligatory</b>	+
MCF	+	+	+	<b>min 5 are obligatory</b>
MIM and MCF	+	+	+	<b>min 5 are obligatory</b>
MIM, MSC, MCF	-	<b>min 5 are obligatory</b>	-	<b>min 5 are obligatory</b>
MSC and MCF	-	<b>min 5 are obligatory</b>	-	<b>min 5 are obligatory</b>
MIM, MSC, MiBA	-	<b>min 5 are obligatory</b>	<b>min 5 are obligatory</b>	-
MSC and MiBA	-	<b>min 5 are obligatory</b>	<b>min 5 are obligatory</b>	-
MiBA, MCF	-	-	<b>min 5 are obligatory</b>	<b>min 5 are obligatory</b>
MIM, MiBA, MCF	-	-	<b>min 5 are obligatory</b>	<b>min 5 are obligatory</b>
MSC, MiBA, MCF	-	-	<b>min 5 are obligatory</b>	<b>min 5 are obligatory</b>
MIM, MSC, MCF, MiBA	-	-	<b>min 5 are obligatory</b>	<b>min 5 are obligatory</b>

**Program for “Business Communications”  
Entry Examination in 2024  
APPENDIX 2**

**Written part themes coverage**

**Package 1. Management**

	<b>Question</b>	<b>Includes:</b>
1.	Managers and organizations: the terms of organization, firm, management, efficiency in the broad and narrow sense. The emergence and development of professional management. Management decision-making.	Definitions: firm, organization. Definition of management, the four management functions (list and essence), levels of management. Definition of a manager – what is it like to be a manager (activities and roles). Definition of efficiency in broad and narrow sense.  The history of emergence and development of professional management as institution. Vertical and horizontal labor division in management. Management decision-making: types of decisions and problems, definitions of risk and uncertainty, decision-making models, stages of decision-making process.
2.	The concept of strategy and strategic management. Corporate, competitive and functional strategies. Modern views on strategic management.	Definitions of strategy and strategic management. Purpose of strategy. Levels of strategy and their meaning. Corporate-level strategy: models and frameworks for analysis and development. Business-level strategy: models and frameworks for analysis and development. Global strategy (essence and types).  The concept of vertical integration: definition, advantages, and disadvantages. The concept of diversification: definition, advantages, and disadvantages. The reasons for choosing vertical integration and diversification.
3.	External environment of organization: levels, basic parameters, the organization–environment relationship.	External environment of organization: definition and levels. Parameters of external environment and approaches to its classification and analysis. Influence of external environment on organization: concepts of environmental uncertainty, adapting to the environment. Managing in a global environment.
4.	Concepts of organizational growth, organizational development, organizational changes. Models of organizational change. Concept and elements of organizational culture.	Definitions of organizational growth, organizational development, organizational changes and how they are connected. Model of organizational growth by L. Greiner (scheme and essence). Life cycle of the organization by I. Adizes (scheme and essence).  Models of organizational change. Types and stages of changes implementation. Definition for resistance to organizational change, list, and explanation of its sources.  Concept of organizational culture. Difference from corporate culture. Components of organizational culture. Organizational culture types.
5.	Organizational structures. Designing adaptive organizations.	Definition of organizational structure. Characteristics of organizational structures. Types of organizational structures. New forms of organizational structures (flat, boss less, teal). Organizing the vertical structure.

		Horizontal coordination. Designing adaptive organization.
6.	The concepts of leaders and leadership; leadership and power. Evolution of views on the phenomenon of leadership. Practical aspects of leadership.	Definitions for leader, leadership, power. Sources of leadership. Difference between leaders and managers. Types of leaders. Evolution of views on the phenomenon of leadership: behavioral and situational approaches.
7.	The concepts of motivation. Basic theory of motivation.	Definition of motivation. Foundations of motivation. Types of rewards. Content theories. Process theories. Motivational characteristics of jobs.
8.	Definition of entrepreneurship. Characteristics of entrepreneurs.	Definition of entrepreneurship. Definition of entrepreneur. Personal characteristics of entrepreneurs. Definition and role of small enterprises in the economy. Specificity of entrepreneurial activity. The difference between a manager and an entrepreneur.
9.	Corporate social responsibility and sustainability.	The concept of corporate social responsibility (CSR). The concept of corporate social activity and corporate philanthropy. CSR components. The concept of sustainability. Specifics of management based on sustainability principles. Stakeholders of the company. Evaluating corporate social responsibility. “Shared value” (by Porter, M., Kramer, M.).
10.	Leading teams: types, roles and processes.	Definition of a team. Types of teams. Teams characteristics. Stages of team development. Roles in a team. The issue of team conflict and team effectiveness.
11.	Definition of marketing. The role of marketing in the organization's strategy.	Definition of marketing. Marketing functions. Evolution of marketing role in the strategy of organization. Modern view on the role of marketing. Marketing decision-making and its layers: STP, marketing-mix (define and explain).
12.	Managing quality and performance.	The meaning of control. Hierarchical vs decentralized control. Total quality management. A Balanced Scorecard. Financial control.

## Package 2. Urban management

	Question	Includes:
1.	Public sector: definition and its main characteristics. Peculiarities of public sector management compared to private sector.	Definition of public sector, its main characteristics (or characteristics of players). Comparison of management features in private and public sectors (who makes decisions and how, and at whose expense).
2.	Public-private partnership: the concept and examples.	Definition of public-private partnership, classification, examples for each classification item.



3.	Economic growth and economic development: concepts and examples.	Definition of economic growth and economic development. The main theoretical approaches to the essence of concepts. Examples.
4.	The essence of digital economy: stakeholders and examples of its implementation for urban development.	Definition of digital economy, the use of digital technologies in urban development. Identification of key stakeholders and their interests.
5.	The role of state regulation in urban development – pros and cons.	Definition of state regulation, approaches to definition and examples for urban development. Advantages and disadvantages of government intervention.
6.	Markets and industries in urban economy – definitions, their intersections and examples. The role of government in their development.	Definition of market and industry. Examples of markets and industries in the urban economy. Discussion of the role of the state in the development of markets and industries.
7.	Social policy – definition, structure, examples. Role of government in social sector development.	Definition of social policy, what it includes, examples, the role of the state in the development of social sectors.
8.	Sustainable development – concept and its implementation. Role of government and business.	Definition of the concept, its practical application, examples, the role of the state and business.
9.	The role of macroeconomic environment for effective urban development.	Definition of macroeconomic environment and urban development, parameters of urban development effectiveness assessment and the impact of changes in macroeconomic indicators on them.
10.	Competitive markets and monopolies – definition, examples and state regulation.	Definitions of competitive markets and monopolies, comparative analysis of state role in their development.

### Package 3. Quantitative methods

	Question	Includes:
1.	Data types and sampling.	Data types and collection methods. Usage and examples. Population and sampling, sampling methods. Examples of methods that are applicable for each data types.
2.	Data storage and databases	Data collection and storage. Data load and extraction. Data Warehouse. Data lake.
3.	Data governance	Data management. Data security. Data Quality. Data Architecture. Data modeling and design.

4.	Big data concept.	History and characteristics of Big Data. Big data technologies. Applications of big data.
5.	Business Intelligence	BI history. Main components of BI: reporting and dashboard, OLAP, data mining.
6.	Classical hypothesis testing: types and procedures.	Statistical hypothesis: examples. Types of hypothesis tests. Hypothesis testing: algorithm and example.
7.	Econometrics	Panel data. Correlation: calculation and interpretation. Regression analysis: simple linear regression, logistic regression, model estimation and quality. Interpretation and significance of results.
8.	Data-driven decision making.	Business understanding. Methods and approaches for data-driven decision making. Tools for business analytics. A/B testing. Experiment design.
9.	Machine learning	Regression and classification problem. Machine learning methods. Evaluation metrics. CRISP-DM methodology.
10.	Deep learning	Neural networks. Computer vision and natural language processing. Business applications. Ethics in deep learning.

#### Package 4. Finance

	Question	Includes:
1.	Residual income model for a company's valuation: economic meaning, practical implementation and limitations.	The residual income indicator, its interpretation and importance for practice. The peculiarities of residual income valuation model (assumptions, variables, etc.). Limitations of residual income valuation model.
2.	Financial analysis of a company's performance: indicators and the main methods of analysis	Assessing corporate performance in financial analysis: market and accounting indicators. Relative ratios. Main factor models of corporate performance used in financial analysis.
3.	Target criteria of working capital management. The working capital optimization problem of a company with respect to industrial specifics.	Profitability and liquidity as main target functions of working capital management. Main indicators of working capital management of a company: turnover indicators and cash conversion cycle. The reasons for optimizing the amount of working capital. Industrial examples of differences in the amount and structure of working capital.
4.	The main principles and methods of accounting for companies' manufacturing costs.	The main types of a company's manufacturing costs (by economic meaning). Direct and indirect manufacturing costs. Direct tracing and allocation. Cost drivers.
5.	Board of directors and financial decision-	Ownership, control and governance in a company. Financial decision-making: the role and functions of board

	making in a company.	of directors. Performance and its measurement.
6.	The role of corporate governance in mitigating the agency problem in the context of financial decisions.	Agency problem, agency costs and performance of a company. Key mechanisms and challenges for mitigating the agency problem in a company. The peculiarities of corporate governance practices in contemporary business.
7.	Tasks and issues of managing a company's free cash flow.	Free cash flow of a company: definition & calculation. The role of "free cash flow" construct in decision-making in finance. Key procedures and challenges when managing free cash flow in a company.
8.	The role of financial and non-financial performance measures in management accounting.	Brief description of performance measurement as a task of management accounting. Financial measures as a basis of performance measurement: examples of indicators and their scope of use. The growing necessity to account for non-financial performance measures. Examples of non-financial performance measures.
9.	Financial analysis of a company's sources of financing: the main indicators and criteria for choosing sources of financing.	Financial capital: demand and supply considerations. Capital structure and capital structure decisions in a company. Key tools, instruments and types of financing.
10.	Types of a company's investment decisions. The main principles and approaches to analyzing investment alternatives.	Investment alternatives & company performance. Procedures of decision-making under investment project assessment. Key tools for evaluation of investment alternatives.

**Entry Examination in 2024**  
**APPENDIX 3**

**A candidates' CV form:**

<b>1.</b>	<b>Education</b>					
	University	Department	Undergraduate program name	Language of instruction	Thesis topic	Bachelor's degree graduation year
<b>2.</b>	<b>Additional Training</b>					
	Educational organization		Duration of training	Completed disciplines		Language of instruction
<b>3.</b>	<b>Proficiency in Foreign Languages</b>					
	<b>English</b>		<b>Other (please specify)</b>		<b>Other (please specify)</b>	
	Level of proficiency	Certificates available	Level of proficiency	Certificates available	Level of proficiency	Certificates available
<b>4.</b>	<b>Work Experience</b> (list in the chronological order all formal employment that exceeds 3 months)					
4.1.	Organization	Duration of employment	Type of activity	Role	Main Responsibilities	
4.2.	Organization	Duration of employment	Type of activity	Role	Main Responsibilities	

4.3.	Organization	Duration of employment	Type of activity	Role	Main Responsibilities
5.	<i>Formulate the main motives for entering the GSOM SPbU Master's Program</i>				
6.	<i>List your achievements in education, research, volunteering, organizational activities that you are proud of – the most important 3 items</i>				
6.1.					
6.2.					
6.3.					