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MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

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"Moscow Polytechnic University"

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WORKING PROGRAM OF THE DISCIPLINE

"Business Process Management"

Field of study
38.03.02 Management

Educational program (profile)
"Business Process Management"

Qualification (degree)
Bachelor

Form of study
Half-time

Moscow 2023

Developer(s):

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1. Goals, objectives and planned learning outcomes in the discipline.

The discipline "Business Process Management" is intended to present the modern concept of managing a firm (enterprise) operating in difficult economic conditions.

The main goals of mastering the discipline "Business Process Management" include:

- introduction to students about the problems and prospects for the effective organization of production and operational processes,
- to form theoretical knowledge and practical skills on the basic principles of production (operational) management in order to increase the competitiveness of the enterprise

To the main tasksmastering the discipline "Business Process Management" should include:

- definition of types of operating activities and significant relationships between them;
- consideration of modern problems of operations management based on the study of the foundations of the formation and functioning of the operating system of the organization;
- study of the stages of the life cycle of operating systems, highlighting the characteristic features of each stage and determining the main approaches to solving their inherent operational problems;
- study of the motives for the creation and conditions for the selection of a new product based on modern strategic approaches;
- acquisition of practical skills in developing the process of creating a new product in an organization, including skills in the formation of service plans for organizations engaged in the service sector;
- consideration of the theoretical foundations of building production processes and determining the possibilities of using specific process strategies based on the most influencing factors;
- mastering the skills of designing production processes using modern tools for planning the production flow and on the basis of studying the conditions for choosing the method of providing services;
- determination of directions for improving the operational activities of modern organizations.

The list of planned learning outcomes for the discipline (module), correlated with the planned results of mastering the professional training program.

As a result of mastering the discipline (module), students develop the following competencies and the following learning outcomes should be achieved as a stage in the formation of the relevant competencies:

Cipher	Name	Code and name of the indicator of achievement of competence

OPK-4	Able to identify and evaluate new market opportunities, develop business plans for the creation and development of new activities and organizations	IOPK-4.1. Knows methods for identifying and evaluating new market opportunities, developing business plans for creating and developing new areas of activity for organizations. IOPK-4.2. Able to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations. IOPK-4.3. Possesses the skills and methods to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations.

2. The place of discipline in the structure of the educational program

The discipline "Business Process Management" is one of the compulsory disciplines of the cycle (B1.1) of the bachelor's degree program.

The discipline "Business Process Management" is interconnected logically and content-methodically with the following disciplines and practices of the EP:

In the base part (B1.1):

-Introduction to project activities;

-Organization Lifecycle Management

In the part formed by the participants in educational relations (B.1.2):

- Project activity;
- Business process management tools;
- Reengineering of business processes;
- System management of business processes.

3. Structure and content of the discipline.

The total labor intensity of the discipline is _4_ credit(s) unit(s) (144 hours).

3.1. Types of educational work and labor intensity

(according to the forms of education)

3.1.1. Half-time education

No. p / p	**Type of study work**	**Number of hours**	**Semesters**	
			2	**-**
1	**Auditory lessons**	**36**	**36**	-
	Including:			-
1.1	Lectures	18	18	-
1.2	Seminars/practical classes	18	18	-
1.3	Laboratory studies	-	-	-
2	**Independent work**	**108**	**108**	-
3	**Intermediate certification**	**-**	**-**	-
	Pass/Differential Pass/Exam	**exam**	**exam**	-
	Total	**144**	**144**	

3.2. Thematic plan for studying the discipline
(according to the forms of education)

3.2.1. Half-time education

No.	Sections/topics disciplines	Labor intensity, hour					
		Total	Classroom work				Independent work
			Lecture	Seminar / practical training	Laboratory studies	Practical training	
1	**Topic 1. A systematic approach to managing business processes. Structure, components, types and types of processes. Laws of development of processes.**	12	1	1	-	-	10
2	**Topic 2. Business system and features of management processes occurring in it.**	12	1	1	-	-	10
3	**Topic 3. The quality of the business process as the main result of management.**	12	1	1	-	-	10
4	**Topic 4. The structure and levels of the organization's business processes.**	12	1	1	-	-	10
5	**Topic 5. Business process decomposition. Principles of rational organization of the business process.**	14	2	2	-	-	10
6	**Topic 6. Organization of business processes in time. Calculation of the duration of the process cycle.**	12	2	2	-	-	8
7	**Topic 7. Management programming of business processes.**	12	1	1	-	-	10
8	**Topic 8. Organization of business processes in space. Graphic modeling of business processes.**	18	4	4	-	-	10
9	**Topic 9. Tabular modeling of business processes. Gantt chart with links.**	14	2	2			10
10	**Topic 10. Description of business processes. The main stages of a comprehensive description of the process.**	12	1	1			10
eleven	**Topic 11. Reengineering of business processes. Basic methods for optimizing business processes.**	14	2	2			10
	Total	144	18	18			108

3.3. The content of the discipline

Topic 1. A systematic approach to managing business processes. Structure, components, types and types of processes. Laws of development of processes.

The concept of "business process". The main types and categories of "business processes". Key components of business processes. Types and categories of links in business processes. Basic laws of development of business processes: the law of synergy, the law of self-preservation, the law of growth.

Topic 2. Business system and features of management processes occurring in it.

The concept of "business system" and "business process". System approach in process management. Three rules of consistency. Process as a system. The concepts of "process elements", "process structure", "process parameter". Functioning of the business system. Model "system-environment". Business systems configuration: simple and complex systems. Accounting parameters for business systems: heterogeneity, emergence, hierarchy, aggregation, flexibility, vulnerability, survivability. Cyclic model of business processes functioning.

Topic 3. The quality of the business process as the main result of management.

The concept of quality "business process". The need to improve the quality of processes: the law of 10-fold increase in the cost of nonconformity, the "Law of the Iceberg". Process requirements (internal and external) process properties. Quality management system (QMS) of business processes. Process quality assessment. Process quality assurance. Improving the quality of processes. Qualimetric quality assessment. TQM system in process management.

Topic 4. The structure and levels of the organization's business processes.

Basic levels of business process management. The concept of the structure of business processes by G. Mintzberg. The main components of G. Mintzberg's process model: production (operational) core, strategic apex (top), median line, technostructure, support staff.

Topic 5. Business process decomposition. Principles of rational organization of the business process.

Business process decomposition. Operations (work) in the process: basic, auxiliary, serving. Categories and operations in progress. Process functions. Vertical categorization of business processes: giga-processes, mega-processes, processes, partial processes, functions, operations (works). Principles of rational organization of business processes: parallelism, continuity, direct flow, proportionality, rhythm.

Topic 6. Organization of business processes in time. Calculation of the duration of the process cycle.

The time factor in the measurement of processes. The concept of "process cycle". Categories of process cycles: operating cycle, main cycle, cumulative process cycle. Three forms of organization of operations in the process: serial form, parallel form, series-parallel form of organization of operations. Construction of the process cyclogram. Organization of business processes in time. Distribution of capacities and labor resources in the process. Determining the rhythm of the process, the estimated and actual number of jobs, the loading of jobs and equipment in the process. Calculation of the load of the process as a whole.

Topic 7. Management programming of business processes.

Construction of a decision table for soft links of the process. Decision table and its functionality. The main components of the decision table: action conditions, rules. Complete and complex tables. Combinations of conditions and actions Building a decision table. Analysis and simplification of the decision table. Check for redundancy and completeness of the table.

Topic 8. Organization of business processes in space. Graphic modeling of business processes.

Principles of building graphic models in the process. PERT method and network process schedule. Building a network calendar model. Construction of the process operogram: coordinate operograms, symbolic operograms, mixed operograms. Graphical modeling of business processes in BPMN notation. Graphical modeling of business processes in IDEF0 notation. Graphical modeling of business processes in UML notation. Graphic modeling of business processes in WMS notation.

Topic 9. Tabular modeling of business processes. Gantt chart with links.

Schedule - the schedule of the process. The main components of the calendar plan. Principles of construction of the calendar plan. A simple Gantt chart showing work in progress. Gantt chart with links. Complex Gantt chart with links. Components of the diagram: work, responsible resources, duration, start and end of work, links between work. Types of links between works in the process in the Gantt chart: independent start, start-start, start-finish, finish-finish, finish-finish.

Topic 10. Description of business processes. The main stages of a comprehensive description of the process.

Description of the business process. Basic requirements for the description of processes. The main components of the description of the business process. Business process mapping. Characteristics of the paths in the process. Business Process Responsibility Matrix. Scheme-structure of the process. Cooperation in progress. A detailed description of the business process. Documentation support of the business process. Business process operationalization. Characteristics of the process procedure.

Topic 11. Reengineering of business processes. Basic methods for optimizing business processes.

The concepts of "reengineering" and "optimization" of processes are their main differences. Prerequisites for process improvement. Basic process optimization methods: five questions method - 5WH1 (why-why?), time gap elimination method, balancing business process indicators, developing several business process options, method of reducing the number of inputs and outputs of a business process, matching process results with requirements , minimization of verbal information, standardization of forms of collection and transmission of information, organization of control points.

3.4. Topics of seminars / practical and laboratory classes

3.4.1. Seminar / Practical classes.

Topic 1. *System approach in business process management. Structure, components, types and types of processes. Laws of development of processes.*	Practice 1	Test tasks 1-7
Topic 2. *Business system and features of management processes occurring in it.*	Practice 2	Test tasks 8-12
Topic 3. *The quality of the business process as the main result of management.*	Practice 3	Test tasks 13-22
Topic 4. *Structure and levels of business processes of the organization.*	Practice 4	Test tasks 22-25
Topic 5. *Business process decomposition. Principles of rational organization of business process.*	Practice 5	Test tasks 22-30
Topic 6.*Organization of business processes in time. Calculation of the duration of the process cycle.*	Practice 6	Test tasks 31-33
Topic 7.*Management programming of business processes.*	Practice 7	Test tasks 34-39
Topic 8.*Organization of business processes in space. Graphic modeling of business processes..*	Practice 8	Test tasks 40-42
Topic 9.*Tabular modeling of business processes. Gantt chart with links.*	Practice 9	Test tasks 43-49
Topic 10.*Description of business processes. The main stages of a comprehensive description of the process.*	Practice 10	Test tasks 50-57
Topic 11.*Reengineering of business processes. Basic methods for optimizing business processes.*	Practice 11	Test tasks 58-70

4. Educational, methodological and information support

4.1. Main literature:

1) Dolganova, O. I. Modeling of business processes: textbook and workshop for universities / O. I. Dolganova, E. V. Vinogradova, A. M. Lobanova; edited by O. I. Dolganova. - Moscow: Yurayt Publishing House, 2021. - 289 p. - (Higher education). - ISBN 978-5-534-00866-1. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/468913

2) Gromov, A. I. Management of business processes: modern methods: monograph / A. I. Gromov, A. Fleishman, V. Schmidt; edited by A. I. Gromov. - Moscow: Yurayt Publishing House, 2023. - 367 p. — (Actual monographs). - ISBN 978-5-534-03094-5. —

Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/511132.

4.2. Additional literature:

1) Dolganova, O. I. Modeling of business processes: textbook and workshop for universities / O. I. Dolganova, E. V. Vinogradova, A. M. Lobanova; edited by O. I. Dolganova. - Moscow: Yurayt Publishing House, 2021. - 289 p. - (Higher education). - ISBN 978-5-534-00866-1. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/468913

2) Frolov, Yu. V. Strategic management. Formation of strategy and design of business processes: a textbook for universities / Yu. V. Frolov, R. V. Seryshev; edited by Yu. V. Frolov. — 2nd ed., corrected. and additional - Moscow: Yurayt Publishing House, 2022. - 154 p. - (Higher education). - ISBN 978-5-534-09015-4. — Text: electronic // Educational platform Urayt [website]. - url:https://urait.ru/bcode/491863

4.3 Electronic educational resources:

Electronic educational resource for the discipline is being developed.

4.4. Licensed and freely distributed software.

Office applications, Microsoft Office 2013 (or lower) - Microsoft Open License. License No. 61984042

4.5. Modern professional databases and information reference systems

1. http://www.gov.ru Server of state authorities of the Russian Federation.
2. http://www.mos.ru Official server of the Government of Moscow.
3. http://www.minfin.ru Ministry of Finance of the Russian Federation.
4. http://www.garant.ru GUARANTOR Legislation with comments.
5. http://www.gks.ru Federal State Statistics Service.
6. http://www.rg.ru Russian newspaper.
7. http://www.prime-tass.ru PRIME-TASS Economic Information Agency.
8. http://www.rbc.ru RBC (RosBusinessConsulting).
9. http://www.businesspress.ru Business press.
10. http://www.ereport.ru World economy.
11. http://uisrussia.msu.ru University Information System of Russia.
12. http://www.forecast.ru CMASF (Center for Macroeconomic Analysis and Short-Term Forecasting).
13. http://www.cfin.ru Corporate management.
14. http://www.fin-izdat.ru Publishing House "Finance and Credit"
15. http://economist.com.ru The Economist magazine.

16. http://www.vopreco.ru Journal "Economic Issues".
17. http://www.mevriz.ru Journal "Management in Russia and abroad"
18. http://systems-analysis.ru/ Systems Analysis Laboratory
19. https://gtmarket.ru/concepts/7111 System analysis
20. http://minpromtorg.gov.ru/ Ministry of Industry and Trade of the Russian Federation.
21. http://www.rg.ru Russian newspaper.

5.Logistics support of discipline.

Audiences for lectures and seminars of the general fund: study tables with benches, classroom board, portable multimedia complex (projector, projection screen, laptop). Teacher's workplace: table, chair.

6. Guidelines

6.1. Methodical recommendations for the teacher on the organization of training.

Current control (carried out by the lecturer and teacher): the correctness of answers to questions on the topics covered; assessment of existing opinions and approaches to solving specific problems; essay preparation; intermediate testing in separate sections of the discipline.

When performing current control, it is possible to use test material. Samples of control questions and tasks for conducting current control are given in the appendix. When implementing the undergraduate program, the organization has the right to use e-learning and distance learning technologies. All materials are placed in the LMS of the Moscow Poly (https://online.mospolytech.ru/).

When teaching people with disabilities, e-learning and distance learning technologies should provide for the possibility of receiving and transmitting information in forms accessible to them.

6.2. Guidelines for students on the development of the discipline.

Lecture - a systematic, consistent, monologue presentation by the teacher of educational material, as a rule, of a theoretical nature. When preparing a lecture, the teacher is guided by the working program of the discipline. In the course of lectures, it is

recommended to keep a summary, which will later allow you to recall the studied educational material, to supplement the content during independent work with literature.

You should also pay attention to categories, formulations that reveal the content of certain phenomena and processes, scientific conclusions and practical recommendations, positive experience in oratory. It is advisable to leave fields in the working notes on which to make notes from the recommended literature, supplementing the material of the lecture heard, as well as emphasizing the particular importance of certain theoretical positions.

Lecture conclusions summarize the teacher's reflections on educational issues. The teacher provides a list of used and recommended sources for studying a particular topic. At the end of the lecture, students have the opportunity to ask questions to the teacher on the topic of the lecture. When lecturing on the discipline, electronic multimedia presentations can be used.

Guidelines for students when working at the seminar.

Seminars are implemented in accordance with the working curriculum with consistent study of the topics of the discipline. In preparation for the seminars, the student is recommended to study the basic literature, get acquainted with additional literature, new publications in periodicals: magazines, newspapers, etc. In this case, the recommendations of the teacher and the requirements of the curriculum should be taken into account. It is also recommended to refine your lecture notes by making appropriate entries in it from the literature recommended by the teacher and provided by the curriculum. Abstracts should be prepared for presentations on all educational issues submitted to the seminar.

Since the student's activity in seminars is the subject of monitoring his progress in mastering the course, preparation for seminars requires a responsible attitude. In interactive classes, students should be active.

Guidelines for students on the organization of independent work.

Independent work of students is aimed at independent study of a separate topic of the academic discipline. Independent work is mandatory for each student, its volume is determined by the curriculum. During independent work, the student interacts with the recommended materials with the participation of the teacher in the form of consultations. The electronic library system (electronic library) of the university provides the possibility of individual access for each student from any point where there is access to the Internet.

If there are students from among persons with disabilities, they will be provided with printed and (or) electronic educational resources in forms adapted to their disabilities.

Methodological recommendations for the preparation of presentations.

A presentation (from the English word - presentation) is a set of color slide pictures on a specific topic, which is stored in a special format file with the PP extension. The term "presentation" (sometimes called "slide film") is associated primarily with the information and advertising functions of pictures that are designed for a certain category of viewers (users).

Multimedia computer presentation is:

- dynamic synthesis of text, image, sound;
- the most modern software interface technologies;
- interactive contact of the speaker with the demonstration material;
- mobility and compactness of information carriers and equipment;

- ability to update, supplement and adapt information;
- low cost.

Rules for the design of computer presentations

General Design Rules

Many designers argue that there are no laws and rules in design. There are tips, tricks, tips. Design, like any kind of creativity, art, like any way of some people to communicate with others, like language, like thought, will bypass any rules and laws.

However, there are certain recommendations that should be followed, at least for novice designers, until they feel the strength and confidence to create their own rules and recommendations.

Font design rules:

- Serif fonts are easier to read than sans-serif fonts;
- Capital letters are not recommended for body text.
- Font contrast can be created through: font size, font weight, style, shape, direction, and color.
- Rules for choosing colors.
- The color scheme should consist of no more than two or three colors.
- There are incompatible color combinations.
- Black color has a negative (gloomy) connotation.
- White text on a black background is hard to read (inversion is hard to read).

Presentation design guidelines

In order for the presentation to be well perceived by the audience and not cause negative emotions (subconscious or completely conscious), it is necessary to follow the rules for its design.

The presentation involves a combination of information of various types: text, graphics, musical and sound effects, animation and video clips. Therefore, it is necessary to take into account the specifics of combining fragments of information of various types. In addition, the design and demonstration of each of the listed types of information is also subject to certain rules. So, for example, for textual information, the choice of font is important, for graphic information - brightness and color saturation, for their best joint perception, optimal relative position on the slide is necessary.

Consider recommendations for the design and presentation of various types of materials on the screen.

Formatting text information:

- font size: 24-54 pt (headline), 18-36 pt (plain text);
- font color and background color should contrast (the text should be well read), but not hurt the eyes;
- font type: smooth sans serif font for body text (Arial, Tahoma, Verdana), decorative font can be used for heading if it is legible;
- italics, underlining, bold, capital letters are recommended to be used only for semantic highlighting of a text fragment.

Formatting graphic information:

- drawings, photographs, diagrams are designed to supplement textual information or convey it in a more visual form;

- it is desirable to avoid drawings in the presentation that do not carry a semantic load if they are not part of the style design;
- the color of graphic images should not contrast sharply with the overall style of the slide;
- illustrations are recommended to be accompanied by explanatory text;
- if a graphic image is used as a background, then the text on this background should be well readable.

The content and location of information blocks on the slide:

- there should not be too many information blocks (3-6);
- the recommended size of one information block is no more than 1/2 of the slide size;
- it is desirable to have on the page blocks with different types of information (text, graphs, diagrams, tables, figures) that complement each other;
- keywords in the information block must be highlighted;
- information blocks should be placed horizontally, blocks related in meaning - from left to right;
- the most important information should be placed in the center of the slide;
- the logic of presenting information on slides and in the presentation should correspond to the logic of its presentation.

In addition to the correct arrangement of text blocks, one must not forget about their content - the text. In no case should it contain spelling errors. You should also take into account the general rules for formatting the text.

After creating a presentation and its design, you need to rehearse its presentation and your performance, check how the presentation will look like as a whole (on a computer screen or projection screen), how quickly and adequately it is perceived from different audience locations, under different lighting conditions, noise accompaniment, in an environment as close as possible to the real conditions of the performance.

7. Fund of evaluation funds

7.1. Methods for monitoring and evaluating learning outcomes

In the process of mastering this discipline, the student forms and demonstrates the following competencies:

COMPETENCES		List of components	Competence formation technology	Assessment Tool Form**	Degrees of levels of development of competencies
INDEX	FORMULATION				

OPK-4	Able to identify and evaluate new market opportunities, develop business plans for the creation and development of new activities and organizations	IOPK-4.1. Knows methods for identifying and evaluating new market opportunities, developing business plans for creating and developing new areas of activity for organizations. IOPK-4.2. Able to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations. IOPK-4.3. Possesses the skills and methods to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations.	lecture, independent work, seminars	DS, T, K-Z, exam	A basic level of - has the skills to work with models for predicting the probability of bankruptcy at the enterprise. Enhanced level - has the skills to work with methods of analysis and modeling of business processes. The student is able to apply these skills in new non-standard situations (when analyzing emerging risks).

7.2. Scale and criteria for evaluating learning outcomes

In the process of mastering the educational program, competencies, including their individual components, are formed in stages in the course of mastering disciplines (modules), practices by students in accordance with the curriculum and calendar schedule of the educational process.

An indicator of competency assessment at various stages of their formation is the achievement by students of the planned learning outcomes in the discipline (module).

OPK-4Able to identify and evaluate new market opportunities, develop business plans for the creation and development of new activities and organizations				
IOPK-4.1. Knows methods for identifying and evaluating new market opportunities, developing business plans for creating and developing new areas of activity for organizations.	The student demonstrates the complete absence or insufficient compliance of the following knowledge: methods for identifying and evaluating new market opportunities, developing business plans for creating and developing new areas of activity for	The student demonstrates incomplete compliance with the following knowledge: methods for identifying and evaluating new market opportunities, developing business plans for creating and developing new areas of activity for organizations. Significant mistakes	The student demonstrates partial compliance with the following knowledge: methods for identifying and evaluating new market opportunities, developing business plans for the creation and development of new areas of activity of organizations, but minor errors,	The student demonstrates full compliance with the following knowledge: methods for identifying and evaluating new market opportunities, developing business plans for the creation and development of new areas of activity of organizations, freely operates with acquired

	organizations.	are made, lack of knowledge is manifested, for a number of indicators, the student experiences significant difficulties in operating knowledge when transferring it to new situations.	inaccuracies, and difficulties in analytical operations are allowed.	knowledge.
IOPK-4.2. Able to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations.	The student is not able or insufficiently able to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations	The student demonstrates incomplete compliance with the following skills: identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations. Significant mistakes are made, lack of skills is manifested, for a number of indicators, the student experiences significant difficulties in operating with skills when transferring them to new situations.	The student demonstrates partial compliance with the following skills: identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations. Skills are mastered, but minor errors, inaccuracies, difficulties in analytical operations, transferring skills to new, non-standard situations are allowed.	The student demonstrates full compliance with the following skills: identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations. Freely operates with acquired skills, applies them in situations of increased complexity.
IOPK-4.3. Possesses the skills and methods to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations.	The student does not possess or insufficiently possesses the skills and methods to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations	The student has the skills and methods to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations in an incomplete volume, significant mistakes are made, there is a lack of skills in a number of indicators, The student experiences significant difficulties in applying skills in new situations.	The student partially owns the skills and methods of identifying and evaluating new market opportunities, developing business plans for the creation and development of new areas of activity of organizations; skills are mastered, but minor errors, inaccuracies, difficulties in analytical operations, transferring skills to new, non-standard situations are allowed.	The student has the skills and methods to identify and evaluate new market opportunities, develop business plans for the creation and development of new areas of activity of organizations, freely apply the acquired skills in situations of increased complexity.

Form of intermediate certification: exam.

Intermediate certification of students in the form of an exam is carried out based on the results of all types of educational work provided for by the curriculum for a given discipline (module), while taking into account the results of current monitoring of progress during the semester.

Only students who have completed all types of educational work provided for by the work program for the discipline (tests, reports) are allowed to intermediate certification.

Evaluation scale	***Description***
Great	*All types of educational work provided for by the curriculum were completed. The student demonstrates the correspondence of knowledge, skills and abilities to the indicators given in the tables, according to the evaluation criterion "5".*
Fine	*All types of educational work provided for by the curriculum were completed. The student demonstrates the correspondence of knowledge, skills and abilities to the indicators given in the tables according to the evaluation criterion "4"*
Satisfactorily	*All types of educational work provided for by the curriculum were completed. The student demonstrates the compliance of knowledge, skills and abilities with the assessment criterion "3"*
Unsatisfactory	*One or more types of educational work provided for by the curriculum have not been completed. The student demonstrates incomplete compliance of knowledge, skills and abilities with the threshold level - according to the evaluation criterion "2"*

7.3. Evaluation tools by discipline "Business Process Management"

OS number	Name of the evaluation tool	Brief description of the evaluation tool	Presentation of the evaluation tool in the FOS
2	Test (T)	A system of standardized tasks that allows automatethe procedure for measuring the level of knowledge and skills of the student.	Fund of test tasks
3	Report, message (DS)	Product independent work student, which is a public performance on the presentation of the results of the solution of a certain educational and practical, educational and research or scientific topics	Topics of reports, messages
4	Case-Problem (K-Z)	A practice-oriented task to solve a particular issue of a business process. It involves the analysis of the situation, the use of a business process management tool.	List of case tasks

5	Exam (E)	The final form of knowledge assessment. In higher education institutions are held during the session.	Questions for the exam

7.3.1. Current control

CASE TASKS
in the discipline "Business Process Management"
(formation of the competence of OPK-4)

Case-task 1.

Topic 8: Organization of business processes in space. Graphic modeling of business processes. Formation of a network schedule and operogram of the selected process.

An organization wants to design a manufacturing business process. The result will be the launch of a new production site and the production of high-tech products.
In preparation for the launch, the main operations (works) that must be done as part of the launch of the entire system were identified:

Process operations:

- Analysis of methodological documents on planned operations, lasting 3.75 days;
- Clarification of the production process standards, 6.75 days;
- Rcalculation of the main parameters of the production process at the site, 5.25 days;
- Combination of equipment at the site based on the methodological documentation of the technical process, 4.5 days;
- Organization of the movement of objects of labor on the site based on standard values - 3.75 days;
- ABOUTorganization of the movement of objects of labor on the site based on the calculations of the characteristics of the site, 6 days;
- Calculation of the efficiency and effectiveness of the site based on the scheme for combining equipment on the site, 4.5 days;
- Calculation of the efficiency and effectiveness of the site based on the scheme of movement of objects of labor on the site, 3.75 days.

Task:

1. Based on the description of the main operations of the process, draw up a network calendar schedule for launching a new production site. Mark on the chart:
   - major events in the process;
   - major work in progress;
   - distribute events and works based on the logic of their interdependence with others;
   - put a time metric on each work;

- form several parallel paths within the framework of the network diagram (the principle of process parallelism);
- calculate the duration of all paths within a given process in time;
- highlight the critical path in the graph;
- based on the duration of the critical path, calculate the size of the slack for other paths.

2. Based on the structure of the network schedule and on the deadlines for completing work, create a simple coordinate operogram for this business process.
   As part of the construction of the operogram:
   - ensure that each work has at least 1 responsible executor and 1 co-executor.
   - provide at least 1 additional worker for work on the critical path to insure the work against non-fulfillment.

3. Answer the questions:
   - what is the total length of the resulting process?
   - how many people did it take to provide executors for this process?

Upload the finished business process in the form of a structure diagram to the LMS system in the "task" section.

Case-task 2.

Topic 8: Organization of business processes in space. Graphic modeling of business processes. Graphic modeling of processes in BPMN notation.

The organization has determined the scope and characteristics of the work in its business activities. The essence of the process is the purchase of raw materials from suppliers. After studying the organizational structure, staffing and regulations, the following data can be distinguished:

1. The name of the process under study: "Purchase of goods and materials and services."
2. The process is carried out by the supply department.
3. The owner of the process is the head of the procurement department.
4. Subordinate to the head of the supply department 2 supply managers.
5. Resources required for the implementation of the process: working hours of employees of the supply department, computers, software (1C, Microsoft office), funds on the current account for mutual settlements.
6. Process input: 1st - the date of purchase according to a previously approved plan, 2nd - receipt of an application from an initiator from another department of the organization.
7. Process output: goods and materials or service purchased (document "receipt of goods and services" is issued).

8. Efficiency indicators: % of duplicate items, % of reliable suppliers, % of timely purchases.
9. Based on the process parameters, the following actions were identified.

Table 1 - Possible actions in the procurement business process.

Actions	Responsible
Process the application first	Head of Procurement Department
Assign an executor	Head of Procurement Department
Process document basis	Supply department manager
Request goods and materials or services from suppliers	Supply department manager
Select a supplier by criteria	Supply department manager
Negotiation of the choice of suppliers	Head of Procurement Department
Checkout	Supply department manager
Register an account	Supply department manager
Process shipping notification	Supply department manager
Form the receipt of goods and services	Supply department manager

The studied process parameter is the time of the action/event, the quantitative characteristic is minutes, hours, days. After timing for each operation, all the received data were summarized in a table:

Table 2 - Description of the business process for the purchase of inventory items.

Actions, operations (O) and conditions (C)	Executor	Time, min	Cost, rub.
1.Process the application initially			
O1.1 Establish application eligibility	Beginning supply department	1.1	9.74
U1.1 Incorrect application - refusal (p=0.1)		-	-
Y1.2 Correct application - O2.1 (p=0.9)		-	-
2. Appoint an executor			
O2.1.Set the workload of an employee	Beginning supply department	2	17.70
O2.2. Submit a base document		1	8.85
3. Process the base document			
O3.1. Check available stock	Manager	10.41	71.83
O3.2. Check for repeat purchase		15.24	104.52
Y3.1. Repeat purchase - O7.1 (p=0.7)		-	-
Y3.2 New purchase - O4.1 (p=0.3)		-	-
4. Request goods and materials / services from suppliers			
O4.1 Finding suppliers	Manager	196.17	1328.07
O4.2 Checking the reliability of suppliers		35.4	239.66
5.Select a supplier according to the criteria			
O5.1 Select suitable offers	Manager	18.23	123.42
O5.2 Fill out the approval form		37.8	255.91
6. Coordination of the choice of suppliers			
O6.1 Establish selection criteria	Beginning	2.14	18.94

O6.2 Check stock and repeat purchases	supply department	13.41	118.68
Y6.1 There are comments on the choice - O4.1 (p = 0.2)		-	-
Y6.2 There are no comments on the choice - O8.1 (p=0.8)		-	-
7.Place an order			
O7.1 Coordinate the order with the supplier	Manager	9.45	63.98
O7.2 Place an order in 1C		4.32	29.25
8.Register an account			
O8.1 Agree payment in accounting	Manager	6.14	41.57
O8.2. Register an account		2.36	15.9
9.Process shipping notification			
O9.1 Agree on the date and form of receipt	Manager	5.47	37.03
10. Form the receipt of goods and services			
O10.1 Enter documents into 1C	Manager	10.5	71.08

Table: parameters marked as "Y" (example U1.1., U.1.2) - are variable. The value "p" - shows the probability of the occurrence of this event (1 - 100% probability), the type of connection is soft.

Exercise:

1. Based on the comprehensive description of the business process in Table 2, model the process in BPMN 2.0 notation, outlining it in the form of a complex diagram.
2. In operations where there is variability (example U1.1., U.1.2) - you should place splitters and determine how the process can unfold further, depending on each condition - where and at what stage the process should return or be completely stopped.
3. Distribute business process operations by executors (responsible resources) - each operation must be in its own track (pool) and in its role.
4. Apply numerical data from table 2 to each operation and flow by parameters: time and cost.

Upload the finished business process in the form of a structure diagram to the LMS system in the "task" section.

Case-task 3.

Topic 8: Organization of business processes in space. Graphic modeling of business processes. Graphic modeling of processes in IDEF0 notation (SADT methodology).

The organization Wooden Furniture LLC launches a new key business process. Purpose: production and sale of furniture from natural materials (pine). The process will be executed by the planning department, the production department of the organization and the sales department.

For the process to start, it is necessary to purchase raw materials from suppliers, invest the funds received from sales (I will earn from sales for the past period). A sales funnel should be organized and new customers-buyers should be attracted. To calculate the volume of production and sales, information is needed on the capacity of the wooden furniture market.

The result of the working process should be three types of wooden furniture (children's, kitchen, bedroom). For normal functioning, every month the company must pay suppliers, pay taxes to state authorities. The sales department must also prepare advertising information and commercial offers to attract future customers, take into account the number of satisfied customers per month to form KPIs for sales managers.

The organization has three ownersthat put forward a set of requirements for the quality of furniture. There is also GOST 3702.18 "Production of wooden furniture", which defines the standard for this type of activity. The work of the process must be carried out strictly in accordance with the laws of the Russian Federation.

In general, there are 4 main functions in the business process:

1. Production planning: the planning department is engaged in, the result is a sales plan, production plans and schedules, for a month.
2. Preparation and production support: handled by the production department, the result is a prepared infrastructure and processed materials for production.
3. Furniture production: the production department is in charge, it must be regulated by all planning documents, standards and laws, the result is 3 types of finished furniture (see above).
4. Promotion and sale of furniture: the sales department is in charge, works on the basis of a sales plan, attracts customers, generates advertising and calculates KPI for managers. The result is furniture for sale, as well as information on the volume of sales.

If we consider the last function “Promotion and sale of furniture”, then 4 main operations can be distinguished in it:

1. Fixing a client's request in CRM - duration 5 minutes, performed by a hunter manager.
2. Pitch session - presentation of a commercial offer to the client, duration 12 minutes, performed by a close manager.
3. Registration of the contract and payment of money - duration 25 minutes, performed by a manager-closer.
4. Formation of an application for delivery - duration 10 minutes, performed by a manager-kam.

In order to maintain the desired level of quality, information on the amount of scrap is collected from the results of the process and is used to correct the process at the “Preparation and Production Assurance” stage. It also collects information on the volume of sales in order to calculate the effective KPI for sales managers.

Task: based on a comprehensive description of the process, create a complete graphical model of the process in IDEF0 notation.
As part of the notation, you must:

1. Form a "black box" of the process (context diagram). Select all possible process flows: material, client, financial, information, management.
2. Arrange the flows for the "black box": input, output, control, mechanism.
3. Build a 1-level decomposition diagram for 4 main functions: planning, preparation, production, promotion.
4. Connect the available flows to each function (observe the rules for connecting flows to diagram blocks). If necessary, add additional flows input, output, control, mechanism.
5. For the “Promotion and sale of furniture” function, build a decomposition diagram for the 2nd level for 4 main sales operations: CRM, pitch session, contract, application.
6. For each operation, sum up the existing flows (observe the rules for summing flows to blocks of the diagram), detail the flows by those responsible.
7. For diagram 2 (decomposition into 1 level), plot the feedback flows for this process.
8. Analyze the resulting level 1 and 2 diagrams for balance, answer the question - is this process balanced in terms of functions and operations.

Upload the finished business process in the form of a structure diagram to the LMS system in the "task" section.

Case-task 4.

Topic 8: Organization of business processes in space. Graphic modeling of business processes. Graphic modeling of processes in UML notation.

The university has a significant number of diverse processes. The basis of the university's workflow is the formation and movement of orders for core activities. The implementation of the main functions of the organization depends on the success of passing orders.

Below is the regulation of the business process "Preparation of the order of the rector":

1. Draft orders of the rector are developed by employees of departments on behalf of the rector personally or on their own initiative.
2. Orders are signed personally by the rector, in case of his absence due to vacation - by the first vice-rector. Orders of special importance are signed exclusively by the rector.
3. Quality control of the preparation of the order is the responsibility of directors of departments. The draft order is sent to the director from the contractor for quality control.

4. If the directors of the department have an objection, the draft order is returned to the contractor for revision with the objections attached in the form of a signed order with a list of comments to be eliminated.
5. The correctness of execution of orders is controlled by the general department, in the absence of comments on the correctness of execution, the draft order is endorsed and sent to the legal service for examination for compliance with the law;
6. After passing the approvals and checks of registration, a check is carried out by the legal service of the university, the order is sent to the rector for signature. If the order is among the regular ones (working hours on holidays, about retaking), it is sent for signature to the first vice-rector, if the order is of particular importance, exclusively to the rector (see paragraph 2)
7. The signed order is registered in the archive. Any changes to the order are no longer allowed. The order for the main activity is stored in the archive for at least 10 years, the Order for personnel is stored for at least 50 years, after the expiration of the storage period, the order is subject to destruction.
8. After registration, the order is sent to the informatization department for publication on the university website.

Task:on the basis of the regulation of the process to carry out its description. As part of the assignment, you must:

1. Select and list the main roles of subjects in this process.
2. Describe the functionality of each role, based on the business process regulations.
3. Select and list the main events (operations) of the process.
4. Describe the interaction of roles in a business process in UML notation - use case diagram (based on the materials of topic 3.2), including the implementation of the following elements:
   - place the process field (system);
   - along the edges of the process field, place the main actors of the process in accordance with their role distribution;
   - put down the main events of the process in the process field;
   - connect the main events of the process with the actors that execute them;
   - add (if necessary) to the main process events extended by events (extend function). Set trigger conditions for extended events.
   - add (if necessary) to the main process events supplemented with events (include function).
   - connect the events with arrows to each other in the logic of the deployment of the business process of preparing the "order of the rector".

Upload the finished business process in the form of a structure diagram to the LMS system in the "task" section.

Approximate topics of reports on the discipline
"Business Process Management"

formation of the competence of OPK-4

1) Process approach in practice: problems of implementation.
2) Process approach: positive trends.
3) Importance of implementing a process approach to management
4) Detailing schemes of value chains.
5) Features of constructing schemes of value chains.
6) Advantages and disadvantages of the methodology for constructing value chain schemes.
7) Analysis of value chains and business reorganization of companies
8) Optimization of the company's business model.
9) Ensuring effective cross-functional interaction between departments.
10) Regulation and standardization of activities in the form of processes.
11) Development of a system of indicators for process management.
12) Basic principles of building a system of processes.
13) Methodology for building a business process system
14) Methodology for developing a system of indicators.
15) Information and communication support of the system of indicators
16) Regulation of processes at various levels of management.
17) Process regulation methodology.
18) Regulation of company management processes.
19) Regulation of the activities of structural divisions.
20) Delegation of powers.
21) Regulation and improvement of processes.
22) Analysis of the process in relation to the specified requirements.
23) Process management outsourcing.
24) Process execution analysis.
25) Changing the process execution technology, process resources, process inputs.
26) Business process as a workflow.
27) Theoretical foundations for constructing work flow diagrams.
28) Various forms of presentation of workflow diagrams.
29) Simple workflow diagrams.
30) Combining a diagram with a table to describe workflows.
31) Best Practices for Workflow Charts
32) Collection, processing, accumulation and transfer of knowledge about processes.
33) Obstacles to effective knowledge sharing and ways to overcome them.

Report Evaluation Criteria

No.	Criterion	Grade			
		ex.	choir.	satisfactory	unsatisfactory
1	Report Structure	The report contains semantic parts, balanced in volume	The report contains three semantic parts, unbalanced in volume	One of the semantic parts of the report is missing	The report does not trace the presence of semantic parts

2	Content of the report	The content reflects the essence of the problem under consideration and the main results obtained.	The content does not fully reflect the essence of the problem under consideration or the main results obtained.	The content does not fully reflect the essence of the problem under consideration and the main results obtained.	The content does not reflect the essence of the problem under consideration or the main results obtained.
3	Ownership of the material	The student fully owns the material presented, is oriented in the problem, freely answers questions	The student owns the material presented, is oriented in the problem, finds it difficult to answer some questions	The student is not fluent enough in the material presented, poorly oriented in the problem	The student does not own the material presented, poorly oriented in the problem
4	Relevance to the theme	The presented material is fully consistent with the stated topic.	The material presented contains elements that are not relevant to the topic.	The material presented contains a large number of elements that are not related to the topic.	The material presented is slightly relevant to the topic.

7.3.2. Intermediate certification

QUESTIONS FOR THE EXAM
in the discipline "Business Process Management"
(formation of the competence of OPK-4)

1. Process-target approach in management and its features.
2. Basic terms and concepts of a business process: process client, process owner, process input and output.
3. Business process entities and their roles in process management.
4. The concept and laws of development of business processes: the law of synergy.
5. The concept and laws of development of business processes: the law of development and its principles.
6. The main levels of the business process: strategic level, process level and operations level. Functions of subjects at these levels.
7. Self-management process and calculation of the share of self-government.
8. System approach in process management. Business system as a set of business processes.
9. Input and output process, output and output situation in the system process model.
10. Types and categories of business systems.
11. Process management in a business system: management cycle. Disturbing variables, feedback variables, result variables.
12. The quality of business processes and how to evaluate it. The main indicators of the quality of the business process.
13. The PDCA cycle in business process management.

14. Calculation of regulatory production, consumer and economic indicators of the quality of the business process.
15. Key indicators and units of measurement of business processes.
16. Process efficiency, process productivity and process quality.
17. G. Mintzberg's Process Management Structure.
18. The main components of G. Mintzberg's process management model: strategic apex and technostructure, their roles and functions.
19. The main components of G. Mintzberg's process management model: the operating core and the median line, their roles and functions.
20. Principles of rational organization of processes: parallelism, proportionality, direct flow, rhythm.
21. Design and calculation of processes of process parameters: operation, operating cycle.
22. Operating cycle and methods of its calculation. Process cycle as a set of operating cycles.
23. Organization of business processes in time business process calculations: calculation of the rhythm of the process, the number of jobs.
24. 23. Organization of business processes in time: calculation of process workload.
25. Process support - the formation of a team of process subjects.
26. Role distribution within the process. Subject-object relations in a business process.
27. Managerial programming and formation of a decision table when modeling soft links of a process.
28. Network business process scheduling is a PERT method in process work allocation.
29. Construction of a coordinate operogram in the distribution of subjects of the process.
30. Construction of symbolic operograms in the distribution of subjects of the process.
31. Description and modeling of a business process - BPMN notation.
32. Description and modeling of a business process - UML notation.
33. Description and modeling of a business process - IFEF0 notation (SADT method).
34. Description and modeling of a business process - WMS notation.
35. Building a Gantt chart with links in business process microplanning.
36. Algorithm for a comprehensive description of a business process.
37. Business process reengineering: methods and technologies of reengineering.
38. The main methods of business process optimization: the method of five questions - 5WH1 (why-why?), the method of eliminating time gaps.
39. The main methods for optimizing a business process: balancing business process indicators, developing several options for a business process, a method for reducing the number of inputs and outputs of a business process.

40. The main methods for optimizing a business process: matching the results of the process with the requirements, organizing control points.

An example of test tasks in the discipline "Business Process Management" (in GIFT format for uploading to LMS) (formation of the competence of OPK-4)

1. In BPMN notation, a splitter is used to characterize the type of communication in the process:
A) Process hard links
B) Soft links of the process
C) Resource links
D) Information links
ANSWER: B

2. There are 4 operations in progress. Duration of operations (min): 2-4-2-1. The process sells product A and product B. The duration of their processing is the same. The production plan for product A is 1,300 units. per month The production plan for product B is 4,000 units. per month How much will be the total amount of work on the line per month in minutes?
A) 45 320;
B) 47,700;
C) 49,800;
D) 51 200.
ANSWER: B

3. Cyclogram of the process (by operations) is used in the framework of process modeling for:
A) Sequence distribution and time for each operation
B) the distribution of the roles of the participants in the process
C) distribution of resources and logistics between operations
D) distribution of operations by levels
ANSWER: A

4. In the graphical model of the process in BPMN notation, when characterizing soft (variable) links of the business process, the tool is affixed:
A) Action (event)
B) Subject
C) Splitter (gateway)
D) System
ANSWER: C

5. When forming a graphical model of the process in BPMN notation, the subjects (actors) of the process are placed:
A) In the form of figures outside the process field
B) In the form of tracks (pool) horizontally through the process field
C) Subjects are placed inside the "action" tool
D) They sign under the schema structure
ANSWER: B

6.When forming a use case diagram in UML notation, in graphical process modeling, the "extend" function is applied to events that:

A) Can be alternative to each other
B) Are options (optional) added to first level events (extend function)
C) Can only be first level events
D) Combine two or more events
ANSWER: B

7. The business process was developed and planned for 8 months (for its full implementation). According to the plan, the process was supposed to sell 750 units of finished products. In fact, after 8 months only 698 units were sold. Can this production plan be considered adequate and of high quality:
A) The planning quality criterion is significantly exceeded
B) The planning quality criterion is slightly exceeded
C) The planning quality criterion is significantly exceeded
D) These indicators do not affect the quality of the process plan
ANSWER: B

8. The following business process layout meets the principle of proportionality:
A) All interoperational breaks are equal
B) All operations and process flows are equal
C) All operations are equal to interoperational breaks
D) All main operations are equal to auxiliary
ANSWER: B

9. How can the principle of parallelism be observed in the main business process:
A) Through the use of an information JIT system
B) Due to the technological layout of production sites
C) Due to the simultaneous execution of operations
D) Due to parallel located points of sale
ANSWER: C

10. The presence of bottlenecks in the business process most negatively affects the following indicators of the rational organization of the process:
A) Specialization
B) Integrity
C) Flexibility
D) Continuity
ANSWER:D

11. The operating cycle of a business process is calculated as a product of:
A) the planned volume for the piece time of the operation
B) the planned volume of the product for the number of jobs
C) the number of jobs per process cost
D) the number of jobs per output
ANSWER: A

12. With a consistent form of movement of objects of labor through business process operations ...:
A) a number of works and operations in a business process are independent of each other and can be performed simultaneously
B) each operation of the business process is carried out on the entire batch of converted products
C) products are transferred from operation to operation in transfer batches
D) part of the product is converted as a whole, part as a transfer batch
ANSWER: B

13. There are 4 operations in progress. Duration of operations (min): 2-4-2-1. The process sells product A and product B. The duration of their processing is the same. product implementation plan A - 1,300 units. per month plan for the implementation of product B - 4,000 units. per month How much will be the total amount of work in the process per month in minutes?
A) 45 320;
B) 47,700;
C) 49,800;
D) 51 200.
ANSWER: B

14. Define the term "performance":
A) This is the total number of products produced by the organization;
B) This is the total number of products produced by the organization per unit of time or resource input;
C) This is the total amount of resources loaded into the business system;
D) This is the volume of man-hours spent on the production of 1 unit. products.
ANSWER: B

15.Operating core of the business process:
A) Provides everything needed for the main process
B) Develops a managerial impact on the main process
C) Responsible for just-in-time delivery of raw materials and spare parts (JIT)
D) Enables the transformation of raw materials and inventories into a finished product or service
ANSWER:D

16. What does (timax / qimax) mean in the formula for calculating the duration of the main cycle of the process?:
A) an activity in a business process that has a minimum duration
B) the activity in the business process that has the longest duration
C) the totality of all operations in a business process
D) a set of increasingly large operations in a business process
ANSWER: B

17. What is interoperational time(tmo)?:
A) is the time between starting and stopping the process
B) this is the time between the release of the next one after another unit of production
C) this is the time of movement of objects of labor between two adjacent operations
D) is the duration of the main operations
ANSWER: C

18. There are three operations in the process. The estimated number of jobs for each operation was: 1.- 2.72. - 1.13. - 3.6. After calculating the actual jobs and the load factor of the production line, we can conclude that in terms of the degree of workload, this line:
A) Heavily overloaded;
B) Somewhat overloaded;
C) underloaded;
D) Practically loaded;
ANSWER: A

19. Coding 5OH + 3 days in a complex Gantt chart with links can mean:
A) The current operation must start 3 days after the start of operation 5

B) The current operation must start 5 days after the start of operation 3
C) The current operation must start 3 days after the end of operation 5
D) The current operation must start 5 days after the end of operation 3
ANSWER: C

20. How can replacing a sequential form of process organization in time with a parallel one increase the productivity of the process?:
A) by radically reducing process time losses
B) by reducing interoperative time
C) by eliminating bottlenecks
D) by increasing the rhythm
ANSWER: A

21. A high-tech business process is:
A) The process of processing raw materials into a result of value to the consumer.
B) The process of ensuring the activities of the organization;
C) The process of managing the basic resources of the organization;
D) The process of relationships between the main participants in the management system.
ANSWER: A

22. Define the concept of "quality of business processes":
A) It is the satisfaction of customer requirements and the norms and standards for this process;
B) This is a process implementation based on a TQM system;
C) This is the formation of a process using information management systems;
D) It is the result of business process reengineering.
ANSWER: A

23. Description of the business process, this is ...
A) Characterization of its main elements by quantitative and graphical methods;
B) Characterization of the business process by graphical methods;
C) Characteristics of the main subjects of the business process and its roles;
D) Qualitative characteristics of the main operations in the process.
ANSWER: A

24. Name the common notation for modeling and describing the organization's business processes:
A) FMEA
B) PDCA
C) BPMN
D) DLL
ANSWER: C

24. The use of common business process modeling notations should answer the questions:
A) can this process be used for strategic planning?
B) Can process errors be detected immediately?
C) Is it possible to obtain predictive data on the development of the process in the future?
D) Can historical process information be analyzed?
ANSWER: B

25. As part of the description of business process cooperation, the following process elements are designed:
A) subjects and objects of the process
B) process input and output

C) main operations of the process
D) feedback variables in the process
ANSWER: B

26. In the absence of regulation in the form of managerial impact, disturbing variables affect the business process:
A) positively
B) destructive
C) developing
D) neutral
ANSWER: B

27. Data stored in the form of statistics on the reaction of process operations to the loading of resources into them are called:
A) perturbing variables
B) feedback variables
C) resulting variables
D) management variables
ANSWER: B

28. Management variables are implemented in the business process in the form of:
A) the amount of loaded resources
B) plans, release programs
C) financial costs of the process
D) Controlling data
ANSWER: B

29. The final result of the functioning of the business process is functionally dependent on the following factors:
A) Input, feedback, managerial impact
B) Exit, controlling, managerial impact
C) strategic apex, feedback, exit
D) operating core, input, feedback
ANSWER: A

30. The wording of the law of synergy in the development of business processes sounds like:
A) the elements of the process individually give more than the process as a whole
B) the elements of the process individually give less than the process as a whole
C) all process elements can be aggregated
D) the result of the processes is the totality of its individual elements
ANSWER: B

31. The value of the level of self-preservation of the process was -40 units. What needs to be done with the process?:
A) nothing, the process is in development
B) making a decision on the reorganization of processes
C) the process is in artificial, favorable conditions
D) Kill the process immediately
ANSWER: B

32. The organization of independent operations of business processes in the same period of time is an expression of the principle of rational organization of the process:

a) performance principle
B) the principle of parallelism
C) principle of proportionality
D) the principle of continuity
ANSWER: B

33. The business process has 7 operations. The duration of each operation: 2 - 2.2 - 1.9 - 2 -17 - 2 - 2.1. Operation number 5 violates the following process organization principle:
a) performance principle
B) the principle of parallelism
C) principle of proportionality
D) the principle of continuity
ANSWER: C

34. Is the following definition of the concept of quality correct: "Quality is a set of object properties that meet the requirements of the consumer of the business process in the relevant parameters":
A) The definition is correct
B) The definition is completely wrong
C) Definition is incomplete
D) The definition is quite complete, but there are incorrect terms
ANSWER: C

35. The processes associated with the analysis of customer requirements refer to the following quality management standard:
A) ISO 9000: “Quality management systems. Fundamentals and vocabulary"
B) ISO 9001: “Quality management systems. Requirements"
C) ISO 9004: “Managing for the sustainable success of an organization. Quality management approach"
D) National QMS standard in the Russian Federation - GOST R ISO 9001-2015 “Quality management systems. Requirements"
ANSWER: B

36. The organization conducted a consumer market research using a questionnaire survey and, based on the results, compiled an MVP design scheme. What type of processes were these actions?:
A) business management processes
B) Resourcing processes
C) product life cycle processes
D) processes for measuring analysis and violations
ANSWER: C

37. What are the feedback variables in the quality management system?:
A) Resource management
B) Measurement results
C) Obtaining customer requirements
D) Customer Satisfaction
ANSWER: B

38. The costs of resources of various types in a business process for a specific time point (date), for example, on 07/31/2023 form:
A) Output situation
B) Output process
C) Input situation
D) Output Process

ANSWER: C

39.Analysis of consumer feedback revealed 7 complaints regarding product quality. What is the real damage, expressed for the organization in the number of lost orders, in accordance with the law of the "iceberg" in the organization's quality management?:
A) 1380
B) 1750
c) 1880
D) 2200
ANSWER: B

40. At the completion stage, the level of risk and the ability to influence the business process:
A) The level of risk is maximum, the possibility of influence is maximum
B) The level of risk is minimal, the possibility of influence is maximum
C) The level of risk is minimal, the possibility of influence is minimal
D) The level of risk is maximum, the possibility of influence is minimal
ANSWER: C

41. What can be an example of natural loss of time in the calculation of the production process?:
A) regulated rest breaks for staff
B) equipment maintenance and repair
C) detection of defects in products
D) movement of raw materials from operation to operation
ANSWER: A

42. The formation of a process diagram for individual flows: financial, labor resources, material, documentary refers to the stage of describing the innovation process:
A) business process mapping
B) business process paths
C) business process table
D) process flow diagram
ANSWER: B

43. The organization has formed the trajectory of the movement of documents in the electronic document management system. At what stage of the description and modeling of the business process did she take this action?:
A) business process mapping
B) business process paths
C) business process table
D) process flow diagram
ANSWER: B

44. The value of the level of self-preservation of the process was -40 units. What needs to be done with the process?:
A) nothing, the process is in development
B) making a decision on the reorganization of processes
C) the process is in artificial, favorable conditions
D) Kill the process immediately
ANSWER: B

45. Qualimetry refers to the field of quality management of business processes:

a) Quality Assurance
B) Quality improvement
C) Quality assessment
D) Realization of quality
ANSWER: C

46. The "Splitter (gateway)" element in the graphical modeling of processes in the BPMN2.0 notation performs the following function:
A) determines the development of the process depending on specific conditions
B) this is the end of the process
C) this is the place where the process metrics are put down
D) characterizes process operators
ANSWER: A

47. When modeling a process in UML notation (use case diagram tool), there is the following chain of actions: "If the size of the order is greater than what is in stock, delivery is delayed." The "delivery delayed" event is:
A) extended event (extend)
B) an added event (include)
C) generalized event
D) start event
ANSWER: A

48. In the process described and modeled using a network calendar graph (PERT-method), there are three paths: 1 path - length 19 days, 2 path - length 14.5 days., 3 path - length 16 days. Which path is critical?:
A) way 2
B) paths 1 and 3
C) path 1
D) all paths below the critical level
ANSWER: C

49. The operation (work) is marked in the Gantt chart with links as 5OH + 2. Determine the nature of its connection with other operations:
A) the operation will start after the end of operation 5 with a shift of 2 days
B) operation number 5 will start after the end of the previous one with a shift of 2 days
C) the operation will start two days earlier than operation number 5
D) the operation must end at the same time as operation number 5
ANSWER: A

50. When the elements of a system are built on separate levels of a certain system and there is a subordination and subordination of elements, this refers to the property of a complex system:
A) system emergence
B) system hierarchy
C) system synergy
D) system efficiency
ANSWER: B

51.It has been fixed that when 4 elements of level 2 are lost, the system ceases to function. This is a property of a complex system:
A) system hierarchy
B) system synergy
C) system survivability

D) system complexity
ANSWER: C

52. The principle of quantitative certainty in systems analysis can be expressed as follows:
A) each element occupies a certain level in the system
B) each element interacts with the environment
c) Each item can be measured
D) each element is alternative to others
ANSWER: C
53. For the period from 10/31/2023 to 10/31/2023, 1700 units were spent for the operation of the process. resources. This example is characterized by:
a) output situation
B) input process
C) output process
D) input situation
ANSWER: B

54. The development of a regulatory impact, based on feedback variables, is a function of this subsystem in the system cyclic model:
A) managed subsystem
B) control subsystem
C) system input pole
d) system output pole
ANSWER: B

55. Output variables reflect the result of the system activity, formed by:
A) control subsystem
B) system input pole
C) system output pole
D) the strategic apex of the system
ANSWER: C

56. A road map of the process has been built, where each stage is positioned on a single time scale for the map. This is an example of formalizing system information:
A) abstract formalization
B) topological formalization
C) parametric formalization
D) systemic formalization
ANSWER: B

57. Works that are interconnected and collectively achieve the goal of any system or structure is the definition of a business process:
A) ISO 9000:2000
B) M. Hammer, D. Champi
C) PMBOOK
D) is not a business process definition
ANSWER:D

58. The amount of resources loaded into a business process is characterized by a process element:
A) input
B) exit
C) level

D) operation
ANSWER:D

59. A business process owner is a person who:
A) is a user of the results of the process
B) is responsible for the output of the process
C) controls the execution of a specific operation
D) loads resources into the process
ANSWER:D

60. A business process client is a person who:
A) is a user of the results of the process
B) is responsible for the output of the process
C) controls the execution of a specific operation
D) loads resources into the process
ANSWER:D

61. A business process performs a technical service for another production department in that organization. In this case, the business process client is:
A) strategic
B) operational
C) internal
D) external
ANSWER:D

62. Define the concept of "function of a business process":
A) is the amount of resources loaded into the process
B) it is the purpose of each subject or process operation performed to achieve the goals
C) it is the result of his work, quantified
D) it is the dependence of the process on adjacent processes
ANSWER:D

63. The adoption of managerial decisions, as well as the connection of the process with processes of a higher level, belongs to the category of business processes:
A) strategic
B) operational
C) basic
D) auxiliary
ANSWER: A

64. Give a description of the content of the input situation of the business process:
A) costs
B) material resources
C) feedback variables
D) results of process controlling
ANSWER:D

65. In a business system organized according to the “impulse-response” principle, the direct reaction is:
A) stop the process
B) being in the process of marriage
C) changing the input situation
d) output process

ANSWER: C

66. The adoption of managerial decisions, as well as the connection of the process with processes of a higher level, belongs to the category of business processes:
A) strategic
B) operational
C) basic
D) auxiliary
ANSWER:D

67. Scheduled repair of high-tech equipment belongs to the categories of business processes:
A) basic
B) auxiliary
C) serving
d) logistic
ANSWER:D

68. What is the name of a group of process elements that directly converts resources into a useful result?:
A) strategic apex
B) operating core
C) input process
d) output process
ANSWER:D

69. Formation of the scheme-structure of the designed business process refers to the management level:
A) strategic
B) operational
C) tactical
D) synergistic
ANSWER:D

70. According to the concept of G. Mintzberg, the structure of business processes can be defined as:
A) A set of ways to divide the process into separate tasks
B) Aggregate of process resource costs
C) The set of process performers and their synergy
D) Aggregate output and output of a single process
ANSWER:D

71. The transfer of documents is carried out by the couriers of the organization. For this business process, they perform the following role:
A) strategic apex
B) midline
C) support staff
D) technostructure
ANSWER:D

72. What are the subjects of the business process that are included in the technostructure at the lower level of the process doing?:
A) draw up schedules, performing a methodological and temporal analysis of the work of operators, control
B) quality
C) develop systems for strategic planning and control over the implementation of goals

D) control the execution of tasks and motivate performers
E) allocate the resources needed to support the business process
ANSWER:E

73. Define the concept of "process self-management":
A) it is the ability of the subjects of the process to automatically choose the goals of the activity
B) it is the ability of the subjects of the process to independently allocate resources within the framework of their operations
C) it is the ability of the subjects of the process to independently control their operations and identify errors and rejects
D) this is the ability of the subjects of the process to independently organize the process in time and space
ANSWER:D