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MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

Federal State Autonomous Educational Institution of Higher Education

"Moscow Polytechnic University"

(Moscow Poly)

APPROVE
Vice-President
for International Affairs
/Yu.D. Davydova/
"30" 05 2022

Dean,
Faculty of Economics and Management
/A.V. Nazarenko/
"30" 05 2022

WORKING PROGRAM OF THE DISCIPLINE

"Quality Management"

Field of study
38.03.02 Management

Educational program (profile)
"Business Process Management"

Qualification (degree)
Bachelor

Form of study
Part-time

Moscow 2022

1. The goals of mastering the discipline

The main goals of mastering the discipline "Quality Management" should include: the formation of a holistic systemic understanding of the theory and practice of quality management among students, the need to use these achievements in all areas of organizations, regardless of their industry affiliation, as well as skills and abilities in the field of quality management products, services, works, activities of domestic enterprises and organizations.

The main tasks of mastering the discipline "Quality Management" should include:

- to give knowledge of the theoretical foundations in the field of quality assurance and product quality management;
- to teach how to organize work to ensure product quality by developing and implementing quality systems in accordance with the recommendations of international standards ISO 9000;
- give practical recommendations to ensure the effective functioning and improvement of quality systems;
- familiarize with the modern practice of relations between suppliers and customers in the field of quality and the main regulatory documents on legal issues in the field of quality.

2. The place of the discipline in the structure of the bachelor's program

The discipline "Quality Management" is one of the disciplines of the mandatory part (B1.1) of the bachelor's degree program.

The discipline "Quality Management" is interconnected logically and content-methodologically with the following disciplines and practices of the EP:

- Project activity
- Sales management
- Process management
- Consulting management

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

As a result of mastering the discipline, students form the following competence and the following learning outcomes should be achieved as a stage in the formation of the relevant competence:

Competency code	As a result of mastering the educational program, the student must have	List of planned learning outcomes by discipline
PC-4	Capable of preparing for implementation,	**know:** - the main trends in the development of small forms

	monitoring parameters and evaluating the success of changes in the organization	of entrepreneurship; **be able to:** - collect, summarize and analyze the necessary economic information, including the results of the latest research by domestic and foreign economists on the problems of creating and managing a small business; **own:** - categorical and lexical apparatus of economic sciences at the level of knowledge and free use.

4. Structure and content of the discipline

Part-time education:

The total labor intensity of the discipline is 3 credit units, i.e. 108 academic hours (of which 72 hours are independent work of students).

Sections of the discipline "Quality Management" are studied in the third year.

Fifth semester:lectures - 18 hours, seminars - 18 hours, form of control - test.

The structure and content of the discipline "Quality Management" in terms of terms and types of work are reflected in the Appendix.

The content of the sections of the discipline

Topic 1. Management and leadership in quality management

Topic 2. Philosophy and foundations of quality

Topic 3. Elements of a quality management system

Topic 4. Designing products, processes and services in quality management

Topic 5. Control of products and business processes in quality management

Topic 6. Continuous improvement in quality management

Topic 7. Waste reduction

Topic 8. Waste reduction

Topic 9. Quality management risks

5. Educational technologies

The methodology for teaching the discipline "Quality Management" and the implementation of a competency-based approach in the presentation and perception of the material provides for the use of the following active and interactive forms of conducting group, individual, classroom classes in combination with extracurricular work in order to form and develop the professional skills of students:

– lectures;

- preparation for seminars;

– preparation, presentation and discussion of reports at seminars;

- organization and conduct of current control of students' knowledge in the form of testing.

The proportion of classes conducted in interactive forms is determined by the main goal of the educational program, the peculiarity of the contingent of students and the content of the discipline"Quality management" and in general for the discipline is at least 50% of the classroom.

6. Evaluation tools for current monitoring of progress, intermediate certification based on the results of mastering the discipline and educational and methodological support for independent work of students

In the learning process, the following assessment forms of independent work of students, assessment tools for monitoring progress and intermediate assessments are used:

Evaluative means of monitoring progress include control questions and tasks in the form of blank testing, participation in a business game, and presentation of a report.

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/course/view.php?id=9356).

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.

Samples of questions and tasks for conducting current control are given in the appendix.

6.1. Fund of assessment tools for conducting intermediate certification of students in the discipline (module).

6.1.1. A list of competencies indicating the stages of their formation in the process of mastering the educational program.

As a result of mastering the discipline (module), the following competence is formed:

Competency code	As a result of mastering the educational program, the student must have

PC-4	Capable of preparing for implementation, monitoring parameters and evaluating the success of changes in the organization

In the process of mastering the educational program, this competence, including their individual components, is formed in stages during the development of disciplines (modules), practices by students in accordance with the curriculum and calendar schedule of the educational process.

6.1.2. Description of indicators and criteria for assessing competencies formed on the basis of the results of mastering the discipline (module), description of assessment scales

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).

PC-4 -Capable of preparing for implementation, monitoring parameters and evaluating the success of changes in the organization				
Index	**Evaluation criteria**			
	2	**3**	**four**	**5**
know: - the main trends in the development of small forms of entrepreneurship; use.	The student demonstrates the complete absence or insufficient compliance of the following knowledge: the basics of business processes and business communications.	The student demonstrates incomplete compliance with the following knowledge: the basics of business processes and business communications. Significant mistakes 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.	The student demonstrates partial compliance with the following knowledge: the basics of business processes and business communications, but minor errors, inaccuracies, and difficulties in analytical operations are allowed.	The student demonstrates full compliance with the following knowledge: the basics of business processes and business communications. Freely operates with acquired knowledge.
be able to: - collect, summarize and analyze the necessary economic information, including the results of the latest research by domestic and	The student does not know how or insufficiently knows how to establish effective relationships between participants in business processes and manage them.	The student demonstrates incomplete compliance with the following skills: is able to establish effective relationships between participants	The student demonstrates partial compliance with the following skills: he is able to establish effective relationships between participants in	The student demonstrates full compliance with the following skills: he is able to establish effective relationships between participants

foreign economists on the problems of creating and managing a small business;		in business processes and manage them. 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.	business processes and manage them, but minor errors, inaccuracies, difficulties in analytical operations, transferring skills to new, non-standard situations are allowed.	in business processes and manage them. Freely operates with acquired skills, applies them in situations of increased complexity.
own: - categorical and lexical apparatus of economic sciences at the level of knowledge and free	The student does not own or insufficiently owns the categorical and lexical apparatus of economic sciences at the level of knowledge and free use.	The student partially owns the categorical and lexical apparatus of economic sciences at the level of knowledge and free use. The learner experiences significant difficulties in applying skills in new situations.	The student owns the categorical and lexical apparatus of economic sciences at the level of knowledge and free use, but minor errors, inaccuracies, difficulties in analytical operations, transferring skills to new, non-standard situations are allowed.	The student fully owns the categorical and lexical apparatus of economic sciences at the level of knowledge and free use, freely applies the acquired skills in situations of increased complexity.

Scales for assessing the results of intermediate certification and their description:

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. The assessment of the degree of achievement by students of the planned learning outcomes in the discipline (module) is carried out by the teacher conducting classes in the discipline (module) by the method of expert assessment. Based on the results of the intermediate attestation for the discipline (module), the mark "excellent", "good", "satisfactory" or "unsatisfactory" is given.

Only students who have completed all types of educational work provided for by the work program in the discipline "Quality Management" are allowed to the intermediate certification (passed the intermediate control)

Evaluation scale	Description
Excellent	All types of educational work provided for by the curriculum were completed. The student demonstrates the correspondence of knowledge, skills and abilities given in the tables of indicators, operates with the acquired knowledge, skills, skills, applies them in situations of increased complexity. In this case, minor errors, inaccuracies, difficulties in analytical operations,

	transferring knowledge and skills to new, non-standard situations can be made.
Good	All types of educational work provided for by the curriculum were completed. The student demonstrates incomplete, correct correspondence of knowledge, skills, and abilities given in the tables of indicators, or if 2-3 minor errors were made at the same time.
Satisfactorily	All types of educational work provided for by the curriculum were completed. The student demonstrates the conformity of knowledge, which covers the main, most important part of the material, but at the same time one significant error or inaccuracy was made.
unsatisfactory	One or more types of educational work provided for by the curriculum have not been completed. The student demonstrates incomplete correspondence of knowledge, skills and abilities given in the tables of indicators, significant errors are made, the lack of knowledge, skills and abilities is manifested in a number of indicators, the student experiences significant difficulties in operating knowledge and skills when transferring them to new situations.

The evaluation funds are presented in the annex to the work program.

7. Educational, methodological and information support of the discipline "Quality Management"

a) basic literature:

1. Mikheeva E. N., Seroshtan M. V. Quality management: Textbook /E. N. Mikheeva, M. V. Seroshtan. - 2nd ed., corrected. and additional - M.: Publishing and Trade Corporation "Dashkov and Co", 2021. - 532 p. ISBN 978-5-394-01078-1.*http://www.knigafund.ru/books/199287/read#page1*

b) additional literature:

1. Rzhevskaya S.V. Quality management: Workshop: textbook. M.: Logos, 2019. 288 p. http://www.knigafund.ru/books/178489/read

2. Austrianskikh A.N., Surkov I.V., Kantere V.M., Ermolaeva E.O. Quality management at enterprises of the food and processing industry: a textbook. Novosibirsk: Siberian University Publishing House, 2017. 272 p. http://www.knigafund.ru/books/179538

The possibility of using e-learning, distance learning technologies is provided. All materials are placed in the LMS of the Moscow Poly. (https://online.mospolytech.ru/course/view.php?id=9356)

eight. Logistics support of discipline.

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

9. Guidelines for students when working on lecture notes during the lecture

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 take notes, which will later allow you to recall the studied educational material, supplement the content during independent work with literature, and prepare for the exam.

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.

To perform independent work, methodological support is provided. 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.

10.Methodological recommendations for the teacher (Guidelines for making 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.

The work program was compiled on the basis of the Federal State Educational Standard of Higher Education in the direction of training bachelors on March 38, 02 "Management", approved by order of the Ministry of Education and Science of the Russian Federation of August 12, 2020 No. 970 (Registered in the Ministry of Justice of Russia on August 25, 2020 No. 59449).

The program was made by:
Art. teacher of the department "Management" / Koshel I.S. /
The program was approved at a meeting of the department "Management"
August 29, 2022, Protocol No. 1

Head of the Department "Management"
k. e. PhD, Associate Professor / Alenina E.E. /

Attachment 1

Structure and content of the discipline
"Quality management"
in the direction of preparation 38.03.02 "Management" (bachelor)
educational program "Business Process Management"
Part-time education

Chapter	Semester	A week semester	Types of educational work, including independent student work, and labor intensity in hours					Types of independent work students					Forms of attestation	
			L	F/N	Lab	SRS	DAC	K.R.	K.P.	K/R	T	DC	E	Z
Topic 1. Management and leadership in quality management	2	1-2	2	2		8						+		
Topic 2. Philosophy and foundations of quality	2	3-4	2	2		8						+		
Topic 3. Elements of a quality management system	2	5-6	2	2		8								
Topic 4. Designing products, processes and services in quality management	2	7-8	2	2		8						+		
Topic 5. Control of products and business processes in quality management	2	9-10	2	2		8						+		
Topic 6. Continuous improvement in quality management	2	11-12	2	2		8						+		
Topic 7. Waste reduction	2	13-14	2	2		8						+		
Topic 8. Waste reduction	2	15-16	2	2		8						+		
Topic 9. Quality management risks	2	17-18	2	2		8								
Appraisal Form												1	**E**	
Total hours per discipline			18	18		72								

Appendix 2 to
work program

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION

FEDERAL STATE BUDGETARY EDUCATIONAL INSTITUTION OF HIGHER EDUCATION

"MOSCOW POLYTECHNIC UNIVERSITY"

(MOSCOW POLYTECH)

Direction of training: 38.03.02 "Management"

EP (educational program): "Business Process Management"

Form of study: full-time, part-time

Type of professional activity: organizational and managerial, information and analytical, entrepreneurial

Department: "Management"

VALUATION FUND

BY DISCIPLINE

"Quality management"

Composition: 1. Passport of the fund of appraisal funds

2. Description of evaluation tools

Compiled by:

Art. teacher Koshel I.S.

Moscow, 2022

INDICATOR OF THE LEVEL OF FORMATION OF COMPETENCES

Quality management					
GEF VO 38.03.02 "MANAGEMENT"					
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**				
PC-4	Capable of preparing for implementation, monitoring parameters and evaluating the success of changes in the organization	**know:** - the main regulatory framework for financial management; - methods for assessing the profitability of funds and investment projects; - methods for assessing and reducing investment risks; **be able to:** - analyze situations and assess the financial position of the enterprise; - evaluate the degree of profitability of funds and projects; **own:** - skills in working with regulatory documentation and methods for assessing the financial position of an enterprise, the profitability of projects, the degree of risk; - skills in working with models for predicting the probability of bankruptcy at the enterprise.	lecture, independent work, seminars	DS, T, E	**A basic level of** - has the skills to work with regulatory documentation and methods for assessing the financial position of the enterprise, the profitability of projects, the degree of risk; - has the skills to work with models for predicting the probability of bankruptcy at the enterprise. **Enhanced level** - has the skills to work with regulatory documentation and methods for assessing the financial position of the enterprise, the profitability of projects, the degree of risk; - has the skills to work with models for predicting the probability of bankruptcy at the enterprise. The student is able to apply these skills in new non-standard situations (when analyzing emerging risks).

Appendix 3
to work program

List of assessment tools by discipline

Quality management

OS number	Name of the evaluation tool	Brief description of the evaluation tool	Presentation of the evaluation tool in the FOS
one	Report, message (DS)	The product of the student's independent work, which is a public performance on the presentation of the results of solving a specific educational, practical, educational, research or scientific topic	Topics of reports, messages
2	Test (T)	A system of standardized tasks that allows you to automate the procedure for measuring the level of knowledge and skills of a student.	Fund of test tasks
3	Exam (E)	The final form of knowledge assessment. In higher education institutions are held during the session.	Questions for the exam

Questions for the examby discipline "Quality management" formation of competencies PC-4

1. Quality Policy
2. Types of quality indicators
3. Measurement and evaluation of quality indicators
4. Documentation of quality requirements
5. Statistical series and its characteristics
6. Control sheet
7. Control cards
8. Stages of formation and types of costs for product quality
9. Information base for product quality cost analysis
10. Principles and methods of standardization
11. Organizational and legal foundations of standardization in the Russian Federation
12. International standardization
13. International Organizations for Standardization (ISO)
14. Essence and types of certification
15. Certification procedure in Russia
16. Law on Consumer Protection". Basic provisions.
17. Law "On Certification of Products and Services": main provisions.
18. The impact of quality on profit.
19. Definition of the term "certification"
20. Types of certification established in the Law of the Russian Federation "On Certification of Products and Services".

21. Prerequisites for the introduction of certification of products and services in the Russian Federation.
22. Purposes of product and service certification.
23. Concepts of competitiveness of products and services. Domestic quality management systems, what are their commonality and differences from quality systems developed according to MS ISO 9000 series.
24. Standardization activities in accordance with the Law of the Russian Federation "On Standardization".
25. The main features, the concept of "measurement". The role of metrology in quality management.
26. Documents regulating relations in the field of consumer protection.
27. Documents regulating human rights in the world and in Russia in relation to products and their quality.
28. Rights and functions of the State Standard of Russia.
29. The main stages in the development of quality management activities.
30. Single European market and standardization of quality management.
31. The goals of developing standards for parametric series products.
32. Methods of calculation (classification) of financial costs for quality recommended in the MS of the quality system.
33. Organization of work on quality
34. Staff training and motivation
35. Quality control
36. Calculation of costs for quality according to the AML method.
37. Areas of application of statistical methods in product quality management.
38. Classification of the main factors affecting product quality.
39. The procedure for the implementation of state metrological supervision over the release of the state and use of measuring instruments and compliance with metrological rules and norms.
40. The concept of measurement quality.
41. Sources of economic losses from measurement errors.
42. Procedure for certification and services.
43. Product certification schemes adopted in the Russian Federation and in what cases they are applied,
44. The main reasons that encourage enterprises to implement quality systems in accordance with ISO 9000. How is the activity of international standardization according to ISO and IEC differentiated? Prize of the Government of the Russian Federation in the field of quality
45. Law of the Russian Federation on consumer protection
46. Law of the Russian Federation on certification of products and services
47. Scheme of the relationship of Russian laws that determine quality
48. Mandatory requirements of state standards.
49. What caused the need to develop international standards ISO 9000 series for quality systems?
50. Mechanism of influence of quality improvement on efficiency increase.
51. Quality as a factor in the success of an enterprise in a market economy.

52. The problem of trust in product quality.
53. Principles of quality assurance. Private and general quality factors.
54. Subject, object and functions of quality management.
55. Statistical methods of quality control.
56. Brief description of the recommended elements, quality systems.
57. Methodology for the development and implementation of quality systems.
58. Functional and structural diagram of quality management
59. The role and tasks of the quality management service.
60. Improvement of quality systems.
61. Definition, Purpose and Objectives of Certification
62. The evolution of relationships between suppliers and customers in the field of quality.
63. Certification of international practice.
64. Product certification. certification schemes.
65. Responsibility of manufacturers and sellers for product quality.
66. Comprehensive quality indicators
67. Matrix analysis of the functioning of production systems
68. End-to-end mechanism of quality management in Russia.
69. Main stages of development of quality systems
70. Product Quality Assurance Principles
71. Product quality management principles
72. Quality management experience gained in the USA and Japan.
73. The concept of total quality management.
74. Japanese concept of four conditions of quality

Topics of reports by discipline
"Quality management"
(formation of competence PC-4)

1. Positions of the quality management system based on the combination of world experience data.
2. Representation of quality, its relationship with other economic categories (efficiency, profitability, labor intensity, price and costs), its varieties.
3. "Stars" of quality, their right to exist, place and significance in management.
4. Organizational structures and models for quality management.
5. Quality is a worldwide competition.
6. Japanese quality management method.
7. Russian and international approach to quality management
8. Development of technologies and the concept of quality.
9. Quality as an economic category.
10. Basic approaches to quality management.
11. Quality management using the basics of ISO standards.
12. Systematic approach to quality management.
13. Customer orientation in the quality management system.
14. The importance of staff training in the quality system.
15. Place of metrology in the quality management system.

16. Methods and techniques for working in continuous quality improvement
17. Place of organization and remuneration in the process of quality improvement.
18. Organization of the certification system in the Russian Federation and its role in the international system of organization
19. Decision making in the quality management system based on facts.
20. Involving subcontractors in the quality improvement process.
21. Legal basis for certification of products and services.
22. The role of documentation in the quality management system.
23. Legal basis for certification of products and services.
24.Legal basis and periods of certification of quality systems.

Report Evaluation Criteria

No.	Criterion	Grade			
		ex.	choir.	satisfactory	unsatisfactory
one	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
four	Relevance to the topic	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.

Tests by discipline "Quality management" (formation of competence PC-4)

1. Currently, the concept of quality is defined by the ISO 9000 series standard:
   a) “Quality is the degree to which a set of own characteristics fulfills the requirements”;
   b) “Product quality is a set of product properties that determine its suitability to satisfy certain needs in accordance with its purpose”;
   c) “Quality is a set of characteristics of an object related to its ability to satisfy stated and implied needs.”

2. The Kano model includes the following groups of characteristics:
   a) quantitative, surprise characteristics;

b) obligatory, surprise characteristics;
c) mandatory, quantitative, surprise characteristics.

3. Process management based on the application of statistical methods first appeared:
   a) in the rejection phase;
   b) in the quality control phase;
   c) in the quality management phase.

4. The first quality professionals (inspectors or controllers) appeared:
   a) in the rejection phase;
   b) in the quality control phase;
   c) in the quality management phase.

5. The current version of the ISO 9000 series of standards appeared in:
   a) 1987; b) 1997; c) 2005

6. Currently, in developed countries, the priorities are:
   a) the quality of the firm;
   b) the quality of production processes;
   c) quality of life.

7. TQM (Total Quality Management) is:
   a) an integrated management system aimed at continuous quality improvement based on the participation of all employees of the organization;
   b) an approach to involving company employees in the quality improvement process;
   c) the system of relations between suppliers and consumers.

8. The main components of product quality are:
   a) technical specifications;
   b) safety and reliability;
   c) technical, aesthetic, environmental characteristics, safety and reliability.

9. The poka-yoke procedures are used:
   a) only in production;
   b) only in the service sector;
   c) both in production and in the service sector.

10. The TQM approach means that quality is ensured and improved:
    a) at the design and production stages;
    b) at the stages of design, production and after-sales service;
    c) at the stages of marketing research, design, production and after-sales service.

11. The following are involved in the implementation of the TQM approach:
    a) all departments and divisions of the company;
    b) only quality service;
    c) company management and quality service.

12. The effectiveness of the TQM approach depends on:
    a) primarily from middle managers;
    b) primarily from the management of the company;
    c) first of all from the quality service in the company.

13. The implementation of the TQM approach requires (select the incorrect thesis):
    a) continuous improvement of all procedures and processes in the company;
    b) increase in the number of control operations during production processes;
    c) involvement and training of all personnel;
    d) monitoring suppliers and the quality of their products.

14. To implement the principle of decision-making based on facts, the following are used:
    a) statistical methods;
    b) Deming cycle;
    c) Shingo system;
    d) benchmarking.

15. The main idea of Deming's postulates is that it is necessary:
    a) get rid of negligent employees;
    b) adjust the entire management system of the company;
    c) tighten control of all processes in the company.

16. The reason for the certification of quality management systems by Russian enterprises according to ISO 9000:2005 is (select the wrong thesis):
    a) concerns about the state of the environment;
    b) customer requirement;
    c) the prospect of growth of the company's competitiveness.

17. Data stratification can be used (choose the wrong thesis):
    a) together with histograms;
    b) together with Pareto charts;
    c) alone.

18. The controlled state of the process on the control chart reflects the following criteria:
    a) the absence of series and trends;
    b) exit of points beyond the control boundaries;
    c) frequency;
    d) order in the arrangement of points.

19. Quality costs are:
    a) costs that are necessary to ensure customer satisfaction;
    b) the cost of internal and external marriage;
    c) the costs of the functioning of the quality service in the company.

20. The Taylor system was first introduced:
    a) 1905; b) 1949; c) 1951; d) 1964

21. The Deming cycle is a model of improvement, includes:
    a) planning, implementation of quality management;
    b) quality planning;
    c) planning, implementation, control (analysis), quality management action.
22. The law establishing the list of ND in the Russian Federation:
    a) federal law "On quality and safety";
    b) federal law "On technical regulation";
    c) federal law "On Protection of Consumer Rights".

23. What is ISO (ISO):
    a) international organization for standardization;
    b) international electrotechnical commission;
    c) international laboratory.

24. What is "ISO-9000 series":
    a) a package of documents;
    b) quality assurance standards;
    c) product standards.

25. Rosstandart is:
    a) product certification organization;
    b) organization for the management of standardization, metrology and certification;
    c) an environmental management organization.

26. The principles underlying the quality certification:
    a) confidentiality;
    b) voluntariness;
    c) confidentiality, voluntariness, objectivity, reproducibility, informativeness.

27. What concepts of quality improvement existed in our country:
    a) The concept of BIP (defect-free manufacturing of products);
    b) CANARSPI (quality, reliability, resource from the first products);
    c) KANBAN;
    d) KSUKP.

28. What standards of the Russian Federation are currently used for certification of quality systems:
    a) GOST R ISO 9000 - 2001;
    b) GOST R ISO 9001 - 2001;
    c) GOST R ISO 9004 - 2001;
    d) GOST R ISO 9000 - 2008;
    e) GOST R ISO 9001 - 2008.

29. What is the difference between MS ISO 9001 and GOST R ISO 9001:
    a) there is no difference
    b) these are different documents;
    c) GOST R ISO 9001 is an authentic translation of MS ISO 9001.

30. The main regulatory document for confirming the conformity of products at present in accordance with the Federal Law "On Technical Regulation" is:
    a) GOST;
    b) technical regulations;
    c) SanPin.

Answers to tests

1) a	8) in	15) b
2) in	9) in	16) a
3) b	10) in	17) in
4) a	11) a	18) a
5) in	12) b	19) a
6) in	13) b	20) a

7) a	14) a	21) in
22) b	23) a	24) b
25) b	26) in	27) a, b
28) d, e	29) in	30) b