**Map of test tasks**

**Competence** of УК-1: Ability to critical analysis of problem situations on the basis of a systems approach, development of an action strategy

**Indicator** УК-1.1: Searches for and critically analyzes information: distinguishes facts from opinions, interpretations, estimates, forms its own opinions and judgments, justifies its conclusions and point of view

**Discipline Fundamentals of scientific research**

**Test Description:**

1. The test consists of 70 tasks that test the level of mastering the student's competencies. During testing, each student is offered 30 test tasks of 15 open and closed types of different levels of difficulty.

2. For a correct answer to a test task, the student receives 1 conditional point, and for an incorrect answer – 0 points. At the end of testing, the system automatically determines the "earned final score" for the test, according to the evaluation criteria

3 The maximum total score for all correct answers is 100 points.

4. The test is successfully passed if the student correctly answered 70% of the test tasks (61 points).

5. Students are allowed no more than 45 minutes to pass the test, including the organizational moment. Each test task takes an average of 1.5 minutes.

6. The student is given one attempt to pass the computer test.

**The codifier** of the discipline test is the section of the work program "4. Structure and content of the discipline (module)"

**Set of test tasks**

**Closed-type tasks**

**Alternative selection tasks**

*Choose* ***one*** *correct answer*

**Simple ones (Level 1)**

1. Science is:

**A) development and theoretical systematization of objective knowledge**
B) teaching on the principles of building scientific knowledge
ВC) teaching on the forms of building scientific knowledge

2 Scientific research is:

**A) purposeful cognition**

B) development of a general science strategy

C) teaching that allows you to critically comprehend the methods of cognition

 3 The methodology of science is:

**A) a system of methods that function in a particular science**B) purposeful cognition
C) the doctrine of the principles of building scientific knowledge

4 Theory is:

A) development of an overall science strategy

B) a system of methods operating in a particular science

**C) logical generalization of experience in a particular field of knowledge**

5 The methodology of scientific research isbased on:

A) general method

B) generalization of public practice

**C) Diagnostic method**

**Medium-hard (level 2)**

6 Semiotics is:

A) reproduction of new knowledge

**B) availability of information that should be used in teaching a particular discipline**

C) the doctrine of the forms of building scientific knowledge

7 An abstract is:

**A) this is a brief description of the content, purpose of the publication, its reader's address, form**

B) it is a document about the main provisions of the content of the future work (textbook, dissertation)

C) this is a brief description of the content

8 Appendices are part of the text:

A) marked up at the end of each chapter
B) having an additional meaning
**C) having an additional meaning, but necessary for more complete coverage of the topic: placed at the end of the publication**

9 A scientific text is characterizedby:

**A) semantic completeness, integrity and coherence, here reasoning dominates, the purpose of which is to prove the truths revealed as a result of research**

B) integrity and connectivity

C) semantic completeness

10 In scientific work, speech is most often conducted from**:**

A) **the neutral person**B) the first person
C) the third person ("the author believes"), the first person form is rarely used and the second person form of singular pronouns is not used at all

11 Aboutone of the necessary requirements for writing a scientific paper:

**A) brevity, the ability to avoid repetition, excessive detail, the use of unnecessary words, unnecessarily-foreign words**
B) the ability to avoid repetition, excessive detail

C) Brevity

12 The quoted text must correspond exactlyto:

A) the content of the source

B) tasks of scientific work

**C) a source with a mandatory reference to it and compliance with the requirements of bibliographic standards**

13 The table is:

 A) part of a scientific work

 B) form of presentation of scientific material

 **C) verbal-digital material organized in vertical columns (graphs) and horizontal lines, forming a kind of grid, each element of which is an integral part of both graphs and lines**

14 Illustrative material plays an important role in scientific and methodological publications, so it should be:

 A) extensive and deep

 B) it should be brief

 **C) it should be organically linked to the text and help the reader better perceive the essence of the book's content**

15The graph is:

A) This is a geometric image

B) it is part of a scientific work

**C) a drawing used for a visual geometric representation of the quantitative dependence of various phenomena**

16 The diagram is:

**A) a drawing that clearly shows the relationship between different values, a graphic representation of their dependence**

B) This is a graphic image

C) it is part of a scientific work

17 The scheme is:

A) This is an illustration

**B) it is an illustration that uses conventional graphic means and symbols to convey the device, the relationship (connections) of parts, the structure of an object**

C) it is part of a scientific work

18 A bibliographic description is:

A) it is part of a scientific work

**B) information about a printed work or other document that makes itют возможность полуpossible to get an idea of its content, readership, scope, etc.**

C) this is an idea of the content of a scientific work

19 The bibliographic list contains:

A) bibliographic description

B) methodological notes

**C) a bibliographic description of the sources used and / or recommendedand is published in the paper after the conclusion of the review.**

20 The product of scientific and methodological activity is:

**A) works - the result of creative work involving the creation of a new, previously unknown, original**

B) training manuals

C) benefits

21. Works are protected by copyright, which:

**A) is a part of the civil legislation regulating relations on the use of works of science, literature and art**

B) is the property of the author

C) not subject to tax

**22.** Co-authorship means:

**A) creation of a work by joint creative work of two or more persons (co-authors)**

B) co-creation

C) working together

**Challenging levels (Level 3)**

**23** A review is:

**A) critical analysis and evaluation, review of manuscripts of works before their publication or after their publication, before the defense of the dissertation**

B) Conclusions

C) Generalization

**24.** Applied research addresses issuesrelatedto:

**A) with practice, their purpose is to provide scientific means for solving these issues**

B) with scientific discoveries

C) with scientific research

25 Issue indicates на:

A) certain difficulties in scientific work

B) the need to overcome it in the process of scientific activity

**C) to the unknown and encourages its knowledge, ensures the purposeful mobilization of previous knowledge and the organization of obtaining new knowledge obtained in the course of research**

**Compliance tasks**

*Make a match between the left and right columns*

**Simple ones (Level 1)**

26 Set a match:

 **(1С, 2A,3B)**

|  |  |
| --- | --- |
| 1. Research object | A) this is what is within the boundaries of object |
| 2. Subject of research | B) an idea of the result, what should be achieved as a result of work |
| 3. The purpose of the study | C) is the phenomenon or process chosen for studyD) the final result |

27 Establish a match

**(1С, 2A,3B)**

|  |  |
| --- | --- |
| 1. Hypothesis | A) critical analysis and evaluation, review of manuscripts of works before their publication or after their publication, before the defense of the dissertation  |
| 2. Review | B)  evidence of the effectiveness of the application of research results in practice, which is issued after testing the results of research in the relevant organization |
| 3. Act of implementation | C) a scientific assumption that requires testing by experience and theoretical justification, confirmationD) a theoretical conclusion |

**Medium-hard (level 2)**

28 Establish a match

**(1B, 2A, 3С)**

|  |  |
| --- | --- |
| 1. Scientific publications | A)Training programs for Prof. educational programs - federal, regional and university levels; discipline programs for general education schools, higher and secondary educational institutions |
| 2. Educational publications | B) monographs, articles in periodical central publications; collections of scientific works, materials of scientific congresses, scientific and practical conferences; scientificandpractical books |
| 3. Implementation certificates | C) certificate of the effectiveness of applying research results in practice, which is issued after testing the results of research in the relevant organizationD) programs for higher and secondary educational institutions |

29 Set a match:

**(1B, 2A)**

Risk management methods that exclude risky situations from the list of risks.

businesses that have the following names:

methods of avoiding risk;

|  |  |  |
| --- | --- | --- |
| 1. Science | A)purposeful cognition |  |
| 2. Scientific research | B) development and theoretical systematization of objective knowledgeC) teaching that allows you to critically comprehend the methods of cognition |  |

30 Set a match:

**(1B, 2A, 3С)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. Semiotics | A) the doctrine of cognition |  |  |
| 2. Epistemology | B) availability of information that should be used in teaching a particular discipline |  |  |
| 3.Cognition | C) the ability to perceive, distinguish and assimilate phenomena of the external worldD) the historical process of purposeful active mapping (seeking, accumulating and systematizing), which forms people's knowledge |  |  |

31 Set a match

**(1С, 2A,3B)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. Logic | A) a special problem, individual aspects of the object, its properties and features, which, without going beyond the scope of the object under study, will be investigated in work |  |  |
| 2. Subject of research | B) the process or phenomenon of reality with which the researcher works |  |  |
| 3.Object of research | C) the science of the essence of cognitionD) a series of operations that specify and concretize search and research activities |  |  |

32 Establish a match

**(1С,2A)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. ДDiagnostic method | A) logical generalization of experience in a particular field of knowledge |  |  |
| 2. Theory | B) purposeful cognition |  |  |
|  | C) the basis of scientific research methodology |  |  |

33 Establish a match

**(1B, 2С,3A)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. Abstract | A) this is a brief summary, in the form of conclusions, of the content of the work, most often an article, report |  |  |
| 2. Table of contents and contents | B) brief description of the content, purpose of the publication, its reader's address, form |  |  |
| 3.Summary | C) mandatory elements of the reference apparatus of scientific and methodological worksD) sections of the book |  |  |

34Establish a match:

**(1A, 2B, 3С)**

|  |  |
| --- | --- |
|  |  |
| 1. Appendices | (A) предrepresent a part of the text that has additional meaning, but is necessary for more complete coverage of the topic: they are placed at the end of Edition |
| 2. Subject index | B) contains a list of the main thematic objects (subjects) discussed or mentioned in the text of a scientific, methodological or reference publication |
| 3. Table | C) organized in vertical columns (graphs) and horizontal lines of verbal-digital material, forming a kind of grid, each element of which is an integral part of both graphs and linesD) part of a scientific work |

**Challenging levels (Level 3)**

35 Establish a match:

**(1A, 2B, 3С)**

|  |  |
| --- | --- |
|  |  |
| 1. Graph | A) drawing used for visual geometric representation of the quantitative dependence of various types of phenomena |
| 2. Diagram | B) a drawing that clearly shows the relationship between different values, a graphic representation of their dependence |
| 3. Scheme | C) is an illustration that uses conventional graphic means and symbols to convey the device, the relationship (connections) of parts, the structure of an objectD) part of a scientific work |

**Open-type tasks**

**Add-on tasks**

*Write the missing word.*

**Simple ones (Level 1)**

36 Epistemology is the study of **\_\_\_\_\_\_\_\_\_\_\_(cognition)**.

37 The fundamental conceptthat reflects the most essential properties and relations of objects and phenomenais called the "basic concept".\_\_\_\_\_\_\_\_\_\_\_\_\_\_(**category, by category**).

38 A word or combination ofwords that denotes a concept used in sciencee is called scientific \_ \_ \_ \_ \_ (**term**)

39 Athing that reflects the essential and necessary features of a certain setof objects or phenomenais called **\_ \_ \_ \_ \_ \_ (concept**)

40 Apiece, в которой утверждается или отof information in which something is approved or rejectedis called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (judgment**)

\_\_\_\_\_\_\_\_

41 Theguiding idea, the basic starting point of a theory, teaching, worldview, or theoretical program is called \_ \_ \_ \_ **(principle**)

42 A proposition that is the initial one, which is unprovable in a given theory, and from which all other assumptions are deducedby previously fixedrules, is called **\_\_\_\_\_\_\_\_\_\_ (an axiom**)

**Medium-hard (level 2)**

43 The objective, essential, internal, necessary, and stable connection between phenomena and processesis called \_ \_ \_ \_ \_ \_ (**law**).

44. A positive statement, a formulatedthought is called \_\_\_\_\_\_\_\_\_\_\_\_\_(**position, by position**)

45 The totality of theoretical propositions about any field of phenomena of reality is called \_\_\_\_\_\_\_\_\_\_\_ (**teaching**)

46 A particular way ofделенный способ понимания, тракunderstanding or interpreting an object, phenomenon, or process, a basic point of view, or a guiding idea for covering them, is called **\_ \_ \_ \_ \_ \_ (concept)**

47 The logical processof moving from the individual to the general, from the general to more general knowledge, is called empirical**\_\_\_\_\_\_\_\_\_\_\_(generalization**)

48 Regularity inphenomena, stability inrelations between observedphenomena, and reflect empirical **data.\_\_\_\_\_\_\_\_\_\_(laws**)

49 A certain sequence of actions, techniques, and operationsis called **\_\_\_ \_ \_ \_ \_(method, way**)

50. The set of research methods and techniques, theorder of their application, and the interpretation ofлуthe results obtained with their help называетсяis called\_\_\_\_\_\_\_\_\_\_ **(methodology**)

51 The doctrine of the system ofrules, methods and rules is calledют \_ \_ \_ \_ \_ \_ \_ \_ **(methodology)**.

52 Thedivision or decomposition of an objectслеof research into its component parts is called\_\_\_\_\_ \_ (**analysis**)

53 Combining theоединенindividual sides and parts ofthe research object into a single wholeis called \_ \_ \_ \_ \_ \_ (**synthesis**)

54. The approximation of thought(cognition) from facts, individual cases, to a general proposition is called \_\_\_\_\_\_(**induction**).

55 Deduction of the singular or particular from a general proposition; movement of thought (cognition) from general statements to statements about individual objects or phenomena.\_\_\_\_\_\_\_\_\_\_\_ (**deduction, by deduction**)

56 The method to gain knowledge about objects and phenomena based on the fact that they have similarities with others, reasoning in which the similarity of the studied objects in some features makes a conclusion about their similarity in other featuresis called \_\_\_\_\_\_\_\_\_ (**analogy, by analogy**)

57 The method of investigation, which consists inaccepting certain statements (axioms,postulates) without proof, and thendeducing the rest of the knowledge from them according to certain logicalrules, is called the \_\_\_\_\_\_ (**axiomatic**)method

58 A method of research usinga scientific hypothesis, i.e. an assumption about thecause that causes agiven consequence, or about the existenceof a certain phenomenon or object, is called a method **\_\_\_\_\_\_\_\_\_ (hypothetical**)

59Therejection of a phenomenon or object in the sign form of an artificial language (for example, logic, mathematics, chemistry) and the study of this phenomenon or object bymeans of operations with the corresponding signs is called \_\_\_\_\_\_\_\_\_\_(**formalization, by formalization)**

60 The deliberate distraction from certain properties and relationsof the subject under study and highlightingproperties and relations of interest to the researcher is called \_\_\_\_\_\_\_\_\_(**abstracting, by abstracting**)

61 The formation of general properties and relations of objects and phenomena,the definition of a general concept thatreflects the essential, basic features of objects or phenomena of a given class, is called \_ \_ \_ \_ \_ \_ \_ (**generalization**)

62 The method of scientific knowledge, when the researcher first finds the main connection of the studied object (phenomenon), then traces how it changes indifferent conditions, discovers newconnections and thusdisplays its essence in its entirety, is called the ascent from the abstract to the \_ \_ \_ \_ (**concrete**)

63 The investigation of a system (i.e., a certain set of material or idealobjects), connections, its componentsand their connections with the external environment is called the \_\_\_\_ (**system) method**

64 Theпосprocess of cognition based onthe direct perception of the properties of objects and phenomenaри with the help of the sensesis called \_ \_ \_ \_ (**observation**)

65 Fixing The list of features of theobject under study, which are established, for example, byobservation or measurement, is called \_ \_ \_ \_ \_ (**description**)

66 The limitation ofquantitative ratios of research objects or parameters that characterize their propertiesis called \_\_\_\_ \_ \_ (**account**)

 **Challenging levels (Level 3)**

67 Determining the numerical value of a certain quantity by comparing it with a standard is called **\_\_\_\_\_\_\_\_\_ (measurement, by measurement)**.

68 The juxtaposition of features inherent in two or more objects, the identificationofdifferences between them or the finding of common features in them, carried out both by the senses and using special devices, is called\_\_\_\_\_\_ (**comparison**)

69. Artificial reproduction of a phenomenon or process under given conditions, during whichthe proposed hypothesisis tested, is called \_ \_ \_ \_ \_ (**experiment**)

70. The method of scientific knowledge, the essence ofwhich consists in replacing the studieditem or phenomenon with aspecial analogousmodel (object) containingessential features of the original, is called \_\_\_\_\_\_ **(modeling)**.

**Map of accounting for test tasks (option 1)**

|  |  |
| --- | --- |
| Competence | УК-1: Is able to carry out critical analysis of problem situations based on a systematic approach, develop an action strategy |
| Indicator | УК-1.1: Searches for and critically analyzes information: Distinguishes facts from opinions, interpretations, assessments, forms its own opinions and judgments, argues its conclusions and point of view |
| Discipline | Fundamentals of scientific researchof scientific research |
| Level of development | Test results tasks | Total |
| Closed type | Open type |
| Alternative selection | Matching / sequencing | On Supplement |
| 1.1.1 (20%) | 5 | 2 | 7 | 17 |
| 1.1.2 (70%) | 17 | 7 | 24 | 44 |
| 1.1.3 (10%) | 3 | 1 | 4 | 9 |
| Total: | 25  | 10  | 35 | 70 |

**Map of accounting for test tasks (option 2)**

|  |  |
| --- | --- |
| Competence | УК-1: Is able to carry out critical analysis of problem situations based on a systematic approach, develop an action strategy |
| Indicator | УК-1.1: Searches for and critically analyzes information: Distinguishes facts from opinions, interpretations, assessments, forms its own opinions and judgments, argues its conclusions and point of view |
| Discipline | Fundamentals of scientific research |
| Level of development | Test tasks |
| Closed-type | Open-type |
| Alternative choice | Matching / Sequencing | On Supplement |
| 1.1.1 | 1. Science is:A) development and theoretical systematization of objective knowledgeB) teaching on the principles of building scientific knowledgeC) teaching on the forms of building scientific knowledge2 Scientific research is:A) purposeful cognitionB) development of a general strategy of scienceC) teaching that allows you to critically understand the methods of cognition 3 The methodology of science is:A) the system of methods that function in a particular scienceB) purposeful cognitionC) The doctrine of the principles of building scientific knowledge4 Theory is: A) the development of a general strategy of scienceB) the system of methods that function in a particular scienceC) the logical generalization of experience in a particular branch of knowledge5 The basis of the methodology of scientific research is:A) general methodB) generalization of social practiceC) diagnostic method | 26 Establish compliance with 1. Object of research | 36 Epistemology is the study of **\_\_\_\_\_\_\_\_\_\_\_**.37 A general, fundamental concept that reflects the most essential properties and relationships of objects and phenomena is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_. 38 A word or combination of words denoting a concept used in science is called scientific \_\_\_\_\_ .39 A thought that reflects the essential and necessary features of a certain set of objects or phenomena is called **\_\_\_\_\_\_\_.**40 A thought that asserts or denies something is called **a positive thought.\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .**41 The guiding idea, the basic starting point of a theory, teaching, worldview, or theoretical program is called \_\_\_\_ **.**42 A proposition that is the initial one, which is unprovable in a given theory, and from which all other assumptions are derived according to pre-fixed rules, is called **\_\_\_\_\_\_\_\_\_\_ .** |
| 2. Subject of the study |
| 3. Purpose of the study |
| A) this is something that is within the boundaries of the object |
| B) an idea of the result, what should be achieved as a result of work |
| C) this phenomenon or process chosen for studyD) the final result |
| 27. Set a match: |
| 1. Hypothesis |
| 2. Review |
| 3. Act of implementation |
| A) critical analysis and evaluation, review of manuscripts of works before their publication or after their publication, before defending a dissertation  |
| B) evidence of the effectiveness of applying the results of research in practice, which is issued after testing the results of research in the relevant organization |
| C) a scientific assumption that requires testing by experience and theoretical justification, confirmationD) theoretical conclusion |
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| 1.1.2 | 6 Semiotics is:A) reproduction of new knowledgeB) availability of information that should be used in teaching a particular disciplineC) teaching about the forms of building scientific knowledge 7 Abstract is:A) this is a brief description of the content, purpose of the publication, its reader's address, formB) this is a document about the main provisions of the content of the future work (textbook, dissertation)C) this is a brief description of the content8 Appendices are part of the text:A) are marked up at the end of each chapterB) has an additional meaning C) has an additional meaning, but is necessary for a more complete coverage of the topic: placed at the end of the publication 9 For a scientific text, the following are typical:A) semantic completeness, integrity and coherence, here reasoning dominates, the purpose of which is to prove the truths revealed as a result of researchB) integrity and coherenceC) semantic completeness10 In scientific work, speech is most often conducted from:A) neutral person B) first personC) third person ("the author believes"), the first person form is rarely used and the second person form of singular pronouns is not usedat all 11 One of the necessary requirements for writing a scientific paper:A) brevity, the ability to avoid repetition, excessive detail, the use of unnecessary words, unnecessarily-foreign wordsB) the ability to avoid repetition, excessive detailC) brevity12 The quoted text must accurately correspond to:A) the content of the sourceB) the tasks of the scientific workC) the source with a mandatory reference to it and compliance with the requirements of bibliographic standards13 The table is:A) part of a scientific workB) form of presentation of scientific materialC) organized in vertical columns (columns) and horizontal lines verbal and digital material, forming a kind of grid, each element of which is an integral part of both graphs and lines14 Illustrative material plays an important role in scientific and methodological publications, so it should be:A) extensive and deepB) it should be conciseC) it should be organically connected with the text and help the reader better perceive the essence of the book's content15 A graph is: A) it is a geometric imageB) it is part of a scientific work C) a drawing used for visual geometric representation of the quantitative dependence of various phenomena16 Diagram - this is: A) a drawing that clearly shows the relationship between different values, a graphic representation of their dependenceB) this is a graphic imageC) this is part of the scientific work17 The scheme is:A) this is an illustrationB) this is an illustration that conveys the device, the relationship (connections) of parts, and the structure of an object using conventional graphic means and symbolsC) this is part of a scientific work. A bibliographic description is:A) it is part of a scientific workB) information about a printed work or other document that makes it possible to get an idea of its content, readership, scope, etc.C) this idea of the content of a scientific work19 The bibliographic list contains:A) bibliographic descriptionB) methodological notesC) bibliographic description of the used and (or) recommended sources and is placed in the work after the conclusion20 The product of scientific and methodological activity is: A) works-the result of creative work involving the creation of a new, previously unknown, original B) manualsC) manuals21. Works are protected by copyright, which:A) is part of the civil legislation regulating relations on the use of works of science, literature and artB) is the property of the authorC) is not subject to tax22. Co-authorship means:A) creation of a work by joint creative work of two or more persons (co-authors)B) collaborative creativityC) collaborative work | 28. Set the matchto 1. Scientific publications2. Educational publications3. Acts of implementationA)Training programs for Prof. educational programs - federal, regional and university levels; programs in the discipline for general education schools, higher and secondary educational institutionsB) monographs, articles in periodical central publications; collections of scientific works, materials of scientific congresses, scientific and practical conferences; popular science booksC) certificate of the effectiveness of the application of research results in practice, which is issuedby the Ministry of Education and Science of the Russian Federation. D) programs for higher and secondary educational institutions29. Set a match:1. Science2. Scientific researchA) Purposeful cognitionB) development and theoretical systematization of objective knowledgeC) teaching that allows you to critically comprehend the methods of cognition30. Set a match:1. Semiotics2. Epistemology3. CognitionA) the doctrine of cognitionB) the availability of information that should be used in teaching a particular disciplineC) the ability to perceive, distinguish and assimilate phenomena of the external worldD) the historical process of purposeful active mapping (seeking, accumulating and systematizing) that forms people's knowledge31. Set a match:1. Logic2. Subject of research3. Object of researchA) a special problem, individual aspects of the object, its properties and features, which, without going beyond the scope of the object under study, will be investigated in the workB) the process or phenomenon of reality with which the researcher worksC) the science of the essence of cognitionD) a series of operations that clarify and concretize search and research activities 32. Set a match:1. Diagnostic method2. TheoryA) logical generalization of experience in a particular field of knowledge B) purposeful cognitionC) the basis of scientific research methodology33. Set a match:1.Abstract2. Table of contents and contents3. SummaryA) this is a brief summary, in the form of conclusions, of the content of the work, most often an article, a reportB) a brief description of the content, the purpose of the publication, its reader's address, formsC) mandatory elements of the reference apparatus of scientific and methodological worksD) sections of the book34. Set a match:1. Appendices2. Subject index3. TableA) represents a part of the text that has an additional meaning, but is necessary for a more complete coverage of the topic: they are placed at the end of the publicationB) contains a list of the main thematic objects (subjects) discussed or mentioned in the text of a scientific, methodological or reference publicationC) organized in vertical columns (columns) and horizontal lines of verbal anddigital material that forms a kind of grid, each element of which is an integral part of both graphs and linesD) part of a scientific work | 43 An objective, essential, internal, necessary and stable connection between phenomena and processes is called \_\_\_\_\_\_ .44 Scientific statement, formulated idea is called \_\_\_\_\_\_\_\_\_\_\_\_\_.45. A set of theoretical propositions about a particular field of reality phenomena is called \_\_\_\_\_\_\_\_\_\_\_ .46 A certain way of understanding, interpreting any object, phenomenon, process, the main point of view, the guiding idea for their coverage is called **\_\_\_\_\_\_ .**47 The logical process of moving from the singular to the general, from the general to more general knowledge, is called empirical**\_\_\_\_\_\_\_\_\_\_\_**48 Regularity in phenomena, stability in relations between observed phenomena reflect empirical **data.\_\_\_\_\_\_\_\_\_\_**49 A certain sequence of actions, techniques, and operations is called **\_\_\_\_\_\_\_\_.**50 A set of methods and techniques of research, the order of their application and interpretation of the results obtained with their help is called\_\_\_\_\_\_\_\_\_\_51 The doctrine of a system of techniques, methods, and rules is called \_\_\_\_\_\_\_\_.52 Dissection, decomposition of the object of research into its component parts is called\_\_\_\_\_\_\_.53 The connection of separate sides, parts of the object of research into a single whole is called \_\_\_\_\_\_ .54. The movement of thought (cognition) from facts, individual cases to the general situation is called \_\_\_\_\_\_.55 Deduction of the singular or particular from a general proposition; movement of thought (cognition) from general statements to statements about individual objects or phenomena.\_\_\_\_\_\_\_\_\_\_\_56. In order to gain knowledge about objects and phenomena based on their similarity to others, reasoning, in which a conclusion is drawn from the similarity of the studied objects in some features about their similarity in other features, called \_\_\_\_\_\_\_\_\_ .57 The method of research, which consists in accepting certain statements (axioms, postulates) without proof and then deducing the rest of the knowledge from them according to certain logical rules, is called the \_ \_ \_ \_ \_ \_ method .58 A method of investigation using a scientific hypothesis, i.e. an assumption about the cause that causes a given effect, or about the existence of a certain phenomenon or object, is called a method **\_\_\_\_\_\_\_\_\_ .**59 Displaying a phenomenon or object in the sign form of an artificial language (for example, logic, mathematics, chemistry) and studying this phenomenon or object through operations with the corresponding signs is called \_\_\_\_\_\_\_\_\_\_.60 A mental distraction from certain properties and relationships of the subject under study and highlighting the properties and relationships of interest to the researcher is called \_\_\_\_\_\_\_\_\_.61 The establishment of general properties and relations of objects and phenomena, the definition of a general concept that reflects the essential, basic features of objects or phenomena of a given class, are called\_\_\_\_\_\_\_.62 The method of scientific cognition, when the researcher first finds the main connection of the studied object (phenomenon), then traces how it changes in different conditions, discovers new connections and thus displays its essence in its entirety, is called the ascent from the abstract to the \_\_\_\_ .63 The study of a system (i.e., a certain set of material or ideal objects), its connections, its components, and their connections with the external environment is called the \_ \_ \_ \_ method .64 The method of cognition based on the direct perception of the properties of objects and phenomena with the help of the senses is called \_\_\_\_ .65 Fixing the features of the object under study, which are established, for example, by observation or measurement, is called \_\_\_\_\_ .66 The determination of quantitative ratios of research objects or parameters that characterize their properties is called \_\_\_\_\_\_. |
| 1.1.3 | 23 A review is:A) critical analysis and evaluation, review of manuscripts of works before their publication or after their publication, before defending the dissertationB) conclusionsC) generalization24. Applied research addresses the following issues:A) with practice, their purpose is to provide scientific means for solving these issuesB) with scientific discoveriesC) with scientific research25 The problem indicates:A) certain difficulties in scientific workB) on the need to overcome it in the process of scientific activityC) on the unknown and encourages its knowledge, provides targeted mobilization of previous and organization of obtaining new knowledge obtained in the course of research | 35 Establish compliance with:1. Schedule2. Diagram3. SchemeA) a drawing used for a visual geometric representation of the quantitative dependence of various phenomena B) a drawing that clearly shows the relationship between different quantities, a graphic representation of their dependence C) this is an illustration that transmits the device, the relationship (connections) of parts, the structure of an objectD) a part of a scientific object. task | 67 Determining the numerical value of a certain quantity by comparing it with a standard is called **\_\_\_\_\_\_\_\_\_** .68 The comparison of features inherent in two or more objects, the identification of differences between them or the finding of common features in them, carried out both by the senses and with the help of special devices, is called \_\_\_\_\_\_\_ .69 The artificial reproduction of a phenomenon or process under specified conditions, during which the proposed hypothesis is tested, is called \_\_\_\_\_ .70 The method of scientific cognition, the essence of which consists in replacing the studied object or phenomenon with a special analogous model (object) containing essential features of the original, is called \_\_\_\_\_\_ **.** |
| Total: | 25  | 10  | 35  |

**Evaluation criteria**

**Criteria for evaluating test tasks**

Evaluation criteria: correct completion of one test task is rated 1 point, incorrect-0 points.

The maximum total score for all correct answers is the highest score – 100 points.

**Assessment scale for students ' computer testing results** (recommended)

|  |  |  |
| --- | --- | --- |
| Rating  | Percentage of correct answers | Points  |
| "satisfactory" | 70-79% | 61-75 points |
| "good" | 80-90% | 76-90 points |
| "excellent" | 91-100% | 91-100 points |

**Response keys**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **number of tests** | **Number and option is the correct answer** |  |  | **number** **of tests** | **Number and option is the correct answer** |
|  |  | **36** | knowledge |
| **1** | A) development and theoretical systematization of objective knowledge |  |  | **37** | category |
| **2** | A) purposeful cognition |  |  | **38** | term |
| **3** | А) a system of methods, operating in specific science |  |  | **39** | the concept |
| **4** | С) logical generalization of experience in a particular industry knowledge |  |  | **40** | judgment, proposition |
| **5** | С) diagnostic method |  |  | **41** | principle,  |
| **6** | B) the availability of information that is to be used when teaching a particular discipline |  |  | **42** | axiom,  |
| **7** | A) this is a brief description of the content, the purpose of publication, it is the reader's address, |  |  | **43** | the law, the law of |
| **8** | С) have an additional value, but are necessary for more complete coverage of the topic: placed at the end of the publication |  |  | **44** | position |
| **9** | A) semantic completeness, integrity and connectivity, is dominated by arguments the purpose of which is proof of the truths revealed in the result of the study, |  |  | **45** | teaching  |
| **10** | A) neutral faces |  |  | **46** | concept |
| **11** | A) is short, the ability to avoid repetitive, unnecessary detail, the use of unnecessary words, unnecessarily ― foreign words |  |  | **47** | synthesis of |
| **12** | С) to source, with the mandatory reference to it and compliance with the requirements of bibliographic standards |  |  | **48** | laws |
| **13** | С) organized in vertical columns (columns) and horizontal rows verbal-digital material, forming a kind of grid, each element of which is an integral part and graphs, and line |  |  | **49** | the way |
| **14** | С) it should be organically linked to the text and help the reader better perceive the essence of the book's content |  |  | **50** | methodology |
| **15** | C) a drawing used for a visual geometric representation of the quantitative dependence of various phenomena |  |  | **51** | methodology |
| **16** | A) a drawing that clearly shows the relationship between different quantities, a graphic representation of their dependence |  |  | **52** | analysis |
| **17** | B) this is an illustration that, using conventional graphic means and designations, conveys the device, the relationship (connections) of parts, the structure of an object |  |  | **53** | synthesis |
| **18** | B) information about a printed work or other document that makes it possible to get an idea of its content, reader's purpose, volume, etc |  |  | **. 54** | induction  |
| **19** | C) bibliographic description of used and (or) recommended sources and is placed in the work after the conclusion |  |  | **55** | deduction  |
| **20** | A) works - the result of creative work involving the creation of a new, previously unknown, original |  |  | **56** | analogy |
| **21** | A) is part of the civil legislation regulating relations on the use of works of science, literature and art |  |  | **57** | axiomatic |
| **22** | A) creation of a work by joint creative work of two or more persons (co-authors) |  |  | **58** | hypothetical |
| **23** | A) critical analysis and evaluation, review of manuscripts of works before their publication or after their publication, before the defense of the dissertation |  |  | **59** | formalization |
| **24** | A) with practice, their purpose is to provide scientific means for solving these issues |  |  | **60** | abstraction |
| **25** | C) on the unknown and encourages it provides targeted mobilization of previous and organization of obtaining new knowledge obtained in the course of research |  |  | **61** | generalization |
| **26** | 1С, 2A, 3B |  |  | **62** | specific |
| **27** | 1С, 2A, 3B |  |  | **63** | system |
| **28** | 1B, 2A, 3С |  |  | **64** | observation |
| **29** | 1B, 2A |  |  | **65** | description |
| **30** | 1B, 2A, 3С |  |  | **66** | score |
| **31** | 1С, 2A, 3B |  |  | **67** | measurement |
| **32** | 1B, 2A |  |  | **68** | comparison |
| **33** | 1B, 2С, 3A |  |  | **69** | experiment |
| **34** | 1A, 2B, 3С |  |  | **70** | simulation |
| **35** | 1A, 2B, 3С |  |  |  |  |