

I. Match the information given in column A with the basic stages of research in column B. There are two options you do not need to use.

	A		B
1	The kinetics of thermal decomposition and that of the combustion of hydrazine and its salts has been thoroughly investigated both theoretically and experimentally. However, hydrazine-based rocket fuel is considered hazardous, that is why the search for less toxic and more energy-efficient materials is urgent.	a	subject
2	To elaborate the composition of highly efficient rocket fuel on the basis of NH_3OHNO_3 with the addition of activated coal in various concentrations and different physical and chemical properties.	b	object
3	To study the kinetics of thermal decomposition of NH_3OHNO_3 in the presence of activated coal; to determine the starting temperature for the decomposition of NH_3OHNO_3 in the presence of activated coal; to analyze the distribution of gaseous products.	c	research objectives
4	Carbon-containing energy intensive materials	d	research purpose
5	Space engineering	e	relevance
6	Concentrated water solution of NH_3OHNO_3 , activated coal	f	hypothesis
7	The kinetics of thermal decomposition of NH_3OHNO_3	g	perspectives
8	The addition of activated coal to NH_3OHNO_3 will increase the efficacy of the initial fuel in terms of the type and the alteration of the speed of combustion. This may partly or fully substitute expensive metallic catalysts	h	materials
		i	practical significance
		j	general area of studies

II. Read the text. Define if the following statements are True or False for questions (9-12).

Advanced data analysis techniques can be implemented to quantitatively assess particle contamination data in state-of-the-art chemical distribution systems. Through examining the distribution of the rate of particle detection compared to Poisson's distribution, it is possible to determine if particle variations are random or systematic and allow for the focus of improvement efforts to reduce particle levels with time. By analyzing the particle contamination data in the frequency domain via Fourier transform analyses, periodic cycles of contamination can be identified with the goal of associating contamination events with activities within the chemical delivery system.

9. The subject of the study is analyzed both quantitatively and qualitatively.

10. The object of the analysis is the particles distributions.

11. The purpose of the study is to determine contaminating events with activities within the chemical delivery system.

12. The abstract implies that the researcher used two comparative types of analysis.

III. Read the text. Choose the correct answer (a, b, c, or d) for questions (13-16).

Processing information

During this stage of your research you identify what you have learnt. Before you begin note-taking for your paper, it is a good idea to reread the assignment instructions and rubric to ensure that the expectations are clear. If you are unsure about something, ask your scientific advisor. Note taking includes summary and paraphrase writing, and linking of how your information relates to your focus/ argument. Be sure to assess the value of the information found and its significance. Consider relevancy to your paper as well as point of view. Begin organizing information into the main sections of your paper. Keep track of where parenthetical references will need to be placed. Index cards are a way to organize points and subtopics.

13. The text implies that the researcher should _____ before writing an article.
A. take notes of the instructions
B. contact the scientific advisor
C. conduct practical study
D. study the requirements
14. According to the text, note-taking refers to _____.
A. paraphrasing other scientists' works
B. writing down information necessary for your research
C. making summary of your own research
D. finding linkage between your own ideas
15. "To assess the value of the information found" means _____.
A. to find necessary ideas
B. to understand the purpose and the relevance of the study
C. the study of the techniques of the research carefully
D. to write down key words
16. "Parenthetical references" means _____.
A. to explain your ideas in parentheses
B. to compile the list of references
C. to indicate the author's name and the year of study
D. to organize points and subtopics of your work

VI. Match the word (17-24) and its definition (a-j). There are two definitions you do not need to use.

17	agenda	a	the powerful effect that something has on somebody/something
18	clarify	b	a situation, number or quantity that can vary or be varied
19	impact	c	a plan of things to be done, or problems to be addressed
20	outcome	d	the range of things that a subject an activity, etc. deals with
21	questionnaire	e	the process of questioning people who are representative of a larger group in order to get information about the general opinion
22	reject	f	to make something easier to understand
23	scope	g	a written list of questions that are answered by a number of people so that information can be collected from the answers
24	variable	h	to refuse to accept or consider something
		i	to not give enough attention to something
		j	the result or effect of an action or event

V. Write down the notion for the following definitions.

25. a guess, a tentative assumption that is based on a few known facts but that has not yet been proved to be true or correct _____.

26. A set of steps designed to reach the final purpose _____.

27. a particular way of doing something, especially one in which you have to learn special skills _____.

28. the process of investigating a problem that has not been studied or thoroughly investigated in the past _____.

29. a detailed study of a specific subject, such as a person, group, place, event, organization, or phenomenon _____.

30. something that you decide when you have thought about all the information connected with the situation _____.

31. The system of the relations and the properties of the phenomenon which exists objectively in theory and in practice and serves as a source of relevant information _____.

32. Relations and properties which are subjected to direct investigation.

VI. For questions (33-40) find the correct answer (A, B, C, or D).

33. Which of the following statements is a hypothesis?

A. The research aims at finding fertilizers that make a plant grow bigger.

B. Plants need many types of nutrients to grow. Fertilizers add those nutrients to the soil, thus allowing plants to grow more.

C. Does fertilizers make a plant grow bigger?

D. Plants which have been fertilized should grow more.

34. If the hypothesis is proved, it is called _____.

A. forceful

B. fruitful

C. complete

D. formalized

35. The research process does not contain such stages as _____.

A. developing research methods

B. analyzing problem solution

C. proving a hypothesis

D. making a research proposal

36. The definition consists of the following components _____.

A. the term and the class

B. the term and the sum of differences

C. the class and the sum of differences

D. the term, the class, and the sum of differences

37. Creative thinking as a technique for generating research ideas include _____.

A. searching the literature

B. brainstorming

C. discussing

D. exploring titles of completed projects

38. Writing down words or phrases that occur to your mind without thinking of their order, usefulness, and applicability is called _____.

A. free association

B. brainstorming

C. research objectives

D. personal preferences

39. Formulating a subject for research implies such methods _____.

- A. free association and subdividing
 - B. subdividing and relevance tree
 - C. five Ws and discussion
 - D. free association and discussion
40. Topics that should be avoided in research does not include _____.
- A. choosing extremely neutral topic
 - B. pursuing the topic that goes nowhere
 - C. undertaking an absolutely independent research
 - D. presenting on old work as a new one

