

APPROVED

**at a meeting of the Academic Council
of NJSC «KazNU named after al-Farabi»
Protocol № 11 from 23.05.2025 y.**

Entrance Examination Program for Applicants to Doctoral Studies in the Educational Program Group D084 – “Geography”

I. General Provisions

1. This program is developed in accordance with the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018, No. 600 “On the Approval of Standard Rules for Admission to Education in Organizations Implementing Educational Programs of Higher and Postgraduate Education” (hereinafter referred to as the Standard Rules).

2. The doctoral entrance examination consists of an interview, writing an essay, and a subject-specific examination.

Component	Points
1. Interview	30
2. Essay	20
3. Examination in the profile of the educational program group	50
Total / Passing score	100 / 75

3. The duration of the entrance examination is 3 hours and 10 minutes, during which the applicant writes an essay and answers questions from an electronic examination ticket. The interview is conducted at the university prior to the entrance exam.

II. Procedure for Conducting the Entrance Examination

Applicants to the doctoral program in the educational program group D015 – “Geography” write a problem/thematic essay. The volume of the essay should be no less than 250 words.

The purpose of the essay is to determine the level of analytical and creative abilities, expressed in the ability to construct personal arguments based on theoretical knowledge, social, and personal experience.

Types of essays:

- A motivational essay revealing the applicant’s motivation for research activities;

- A scientific-analytical essay justifying the relevance and methodology of the proposed research;
- A problem/thematic essay reflecting various aspects of scientific knowledge in the subject area.

The electronic examination ticket consists of 3 questions.

Topics for preparation in the profile of the educational program group:

1. Geography in the system of Earth sciences
2. The natural and social essence of geography
3. Contemporary trends in the development of geographical science
4. Key issues in geography
5. Structure of geographical science
6. Branches of physical geography
7. Branches of socio-economic geography
8. Influence of natural and socio-economic factors on the settlement and economic development of the Republic of Kazakhstan
9. Settlement and economic development of the territory of the Republic of Kazakhstan.
10. Urbanization: concept, indicators, scale of modern urbanization processes; specifics of urbanization in Kazakhstan
11. Socio-geographical concepts: economic-geographical position, economic region, and regionalization
12. The role of geography in the scientific justification and practical implementation of rational environmental management and nature conservation
13. General geographical ideas about the modern geographical picture of the world
14. The theory of the environment
15. The theory of geosystems
16. Views of national and foreign scientists on the general object of geography
17. Traditional and new methods of research in geographical science
18. Geographical forecasting
19. Use of traditional and modern methods in geography to search for, process, and present geographical information
20. Development of geographical forecasts using GIS technologies

30 Questions by Level of Difficulty

Level 1:

1. Analyze climate-forming factors and describe the current climatic conditions in the Republic of Kazakhstan
2. Glaciers: their role in runoff and the formation of nival-glacial landscapes; assess current glaciation in Kazakhstan
3. Analyze the physical-geographical and hydrological features of Lake Balkhash; describe its current issues

4. Classify relief types in Kazakhstan and describe modern geomorphological processes; geomorphological zoning of the Republic
5. Identify the characteristic features of the climate and its zoning; hazardous weather phenomena; determine the degree of climate continentality
6. Evaluate the current status and forecast of marine water and salt regimes, water quality, ecosystems, and biological productivity under increasing anthropogenic impact
7. Key features of soil type distribution across the territory; soil-geographical zoning
8. Explain the causes of desertification in the Republic of Kazakhstan; assess anthropogenic influence on the vegetation cover
9. Anthropogenic landscapes. Impact of economic activity on natural-territorial complexes
10. Identify geoecological and nature protection problems; evaluate ecological disaster zones in the Republic of Kazakhstan

Level 2:

1. Evaluate the use of cartographic modeling in scientific geographical research
2. Assess the relevance of GIS technologies in spatial modeling of geosystems
3. Justify the importance of applying remote sensing data for cartographic modeling using GIS
4. Define the essence of ecological-geographical forecasting as a key direction in geography using the spatial and temporal characteristics of processes and phenomena
5. Identify the causes of climate change and evaluate the consequences for countries with different climatic and economic conditions
6. Analyze the desertification situation in Kazakhstan, indicating causes of land degradation, and give recommendations on methods to conserve land resources
7. Define the concept of "Green Economy" and its importance in agriculture
8. Assess the current state of territorial spatial organization and forms of territorial development planning for rational distribution of productive forces and population resettlement
9. Identify the main geopolitical models of the world and evaluate the interrelation between geopolitical and geo-economic processes
10. Emphasize the role of political-geographical studies of conflict-prone factors in global crisis regions and compare the geopolitical issues of highly developed countries

III. List of References Used

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Supplementary Sources:

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2. Абдурахманов Г.М., Криволицкий Д.А., Мяло Е.Г., Огуреева Г.Н.. Биogeография: учебник - 2- е изд., стер. - М.: Академия, 2007. - 480 с.
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