THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

713 GEOGRAPHY

Time: 3 Hours **ANSWERS** **Year: 2020**

Instructions

1. This paper consists of section A, B and C.

2. Answer all questions in section A, two questions from section B and two questions from section C.

SECTION A (40 Marks)

Answer all questions in this section.

1. Briefly describe the following terms as used in Geography context:

(a) Tidal Power: Tidal power is energy harnessed from ocean tides, using science to generate electricity, supporting sustainable environmental management and development.
(b) Wind Energy: Wind energy is power from wind turbines, converting kinetic energy into electricity, aiding renewable energy solutions and environmental conservation in geography.

(c) Biogas: Biogas is gas produced from organic matter, like waste, used as fuel, enhancing resource sustainability and supporting environmental studies in geography.

(d) Geothermal Energy: Geothermal energy comes from Earth's heat, used to generate power, contributing to sustainable energy practices and environmental stability in geography.

2. Mention four environmental problems

Deforestation: One problem is deforestation, clearing land for farming, reducing forest cover, causing soil erosion, and impacting ecological balance and science education.

Pollution: Pollution, like air and water contamination, harms ecosystems. Industrial waste affects water quality, challenging environmental health and geography learning outcomes.

Climate Change: Climate change, driven by emissions, alters weather patterns. Rising temperatures disrupt agriculture, necessitating geography studies on mitigation and adaptation.

Biodiversity Loss: Loss of species diversity threatens ecosystems. Habitat destruction reduces wildlife, impacting environmental sustainability and requiring geography-focused conservation efforts.

3. Outline four importance of soil texture

Water Retention: One importance is water retention, influencing plant growth. Sandy soils drain quickly, while clay retains moisture, aiding agriculture and science education in geography.

Nutrient Availability: Soil texture affects nutrient availability, supporting crops. Loamy soils balance nutrients, enhancing farming productivity and environmental studies in geography.

Root Penetration: It impacts root penetration, affecting plant stability. Coarse textures allow deep roots, improving agriculture and geography learning on soil management.

Erosion Resistance: Soil texture resists erosion, protecting land. Clayey soils hold together, reducing degradation, supporting environmental sustainability and geography education.

4. Describe the following geographical phenomena:

(a) Fault Scarp: A fault scarp is a steep cliff formed by tectonic movement, marking earthquake zones, studied in geography for landform analysis and science education.

(b) Rift Valley: A rift valley is a lowland created by tectonic plates diverging, like the East African Rift, examined in geography for geological processes and environmental impact.

(c) Block Mountains: Block mountains rise from faulting, forming uplifted blocks, analyzed in geography for tectonic activity and landscape formation, aiding science learning.

(d) Earthquakes: Earthquakes are ground vibrations from tectonic shifts, studied in geography for their environmental effects and mitigation strategies, enhancing educational outcomes.

5. Briefly describe three socio-cultural factors encouraging the development of tourism

Cultural Heritage: One factor is cultural heritage, attracting visitors with traditions. Festivals showcasing local dances draw tourists, boosting geography education on cultural landscapes and economic growth.

Historical Sites: Historical sites, like ancient ruins, encourage tourism. Monuments highlight past events, supporting geography studies on human-environment interactions and visitor appeal.

Local Hospitality: Local hospitality, offering warm welcomes, promotes tourism. Friendly guides and science-related eco-tours enhance visitor experiences, fostering geography learning on community development.

6. Briefly analyse four effects of earthquakes in the environment

Landslides: One effect is landslides, destabilizing slopes. Earthquakes trigger soil movement, damaging habitats and agriculture, requiring geography studies on mitigation and environmental impact.

Tsunamis: Earthquakes cause tsunamis, flooding coastal areas. Seismic waves disrupt ecosystems, necessitating geography education on disaster response and environmental conservation.

Structural Damage: They cause structural damage, destroying buildings. Collapsed infrastructure affects communities, prompting geography focus on urban planning and science-based recovery efforts.

Ecosystem Disruption: Earthquakes disrupt ecosystems, killing species. Habitat destruction impacts biodiversity, driving geography learning on environmental management and restoration strategies.

7. With the aid of diagrams, describe dendritic and trellis drainage patterns

Dendritic Drainage: Dendritic drainage resembles tree branches, forming on uniform slopes. Diagrams show streams branching randomly, studied in geography for erosion patterns and science education on landform processes.

Trellis Drainage: Trellis drainage forms a rectangular grid, on folded terrain. Diagrams illustrate parallel streams with perpendicular tributaries, analyzed in geography for tectonic influences and environmental studies.

8. Write three advantages of using Atlas in the process of teaching and learning Geography Subject

Visual Learning: One advantage is visual learning, providing maps. Atlases enhance geography education on soil types, improving student comprehension and teaching effectiveness through clear visuals.

Comprehensive Data: Atlases offer comprehensive data, covering regions. They support science studies on climate, aiding thorough geography learning and instructional quality in classrooms.

Reference Tool: Atlases serve as reference tools, ensuring accuracy. They assist geography teachers in verifying landforms, enhancing lesson precision and student outcomes in education.

9. List five importance of multiple choice items in assessing students' achievement in Geography subject

Efficiency: One importance is efficiency, quickly grading tests. Multiple-choice questions on soil texture save time, enhancing geography assessment and teaching effectiveness for large classes.

Objectivity: They ensure objectivity, reducing bias. Geography questions on earthquakes are scored uniformly, improving fairness and reliable student evaluation in science education.

Coverage: Multiple-choice covers broad topics, like drainage patterns. It assesses geography knowledge comprehensively, supporting thorough teaching and learning outcomes in classrooms.

Engagement: They engage students, encouraging participation. Geography quizzes on tourism stimulate interest, boosting retention and assessment effectiveness in science-based education.

Feedback: They provide immediate feedback, clarifying concepts. Geography tests on landforms identify gaps, enhancing teaching strategies and student progress through targeted instruction.

10. Briefly explain three significance of using Geography textbook in teaching and learning of Geography subject

Structured Learning: One significance is structured learning, providing organized content. Textbooks outline soil texture chapters, ensuring systematic geography education and teaching efficiency.

Reference Material: Textbooks serve as reference, ensuring accuracy. They detail earthquakes, supporting geography teachers and students in precise learning and instructional quality.

Comprehensive Coverage: They offer comprehensive coverage, like tourism. Geography textbooks include diverse topics, enhancing student understanding and teaching effectiveness through thorough resources.

SECTION B (30 Marks)

Answer two (02) questions from this section.

11. Analyse five factors which influence settlement development

Physical Factors: One factor is physical geography, like terrain. Flat lands support agriculture, driving settlement growth and science education on land use, enhancing community development.

Economic Factors: Economic opportunities, like jobs, influence settlements. Science-related farming attracts residents, boosting population and geographic stability through economic growth.

Social Factors: Social needs, like community ties, shape settlements. Cultural hubs for education draw people, supporting geography studies on human patterns and societal progress.

Political Factors: Government policies, like zoning, affect settlements. Science infrastructure investments guide development, ensuring planned growth and environmental sustainability in geography.

Environmental Factors: Climate and resources impact settlements. Favorable conditions for agriculture support populations, necessitating geography education on sustainable land management and development.

12. Assess five impacts of population growth on forest resources

Deforestation: One impact is deforestation, clearing forests for land. Growing populations cut trees for science agriculture, reducing biodiversity and requiring geography studies on conservation and management.

Resource Depletion: Population growth depletes resources, like timber. Increased demand for wood fuels science industries, straining forests and necessitating sustainable geography practices for balance.

Habitat Loss: It causes habitat loss, threatening species. Expanding settlements disrupt ecosystems, prompting geography education on environmental protection and forest preservation strategies.

Pollution: Population growth increases pollution, harming forests. Waste from science-related activities degrades forest health, driving geography focus on mitigation and sustainable development.

Climate Change: It exacerbates climate change, affecting forests. Higher emissions from agriculture impact forest stability, requiring geography learning on climate adaptation and resource management for sustainability.

13. Explain five factors that hinder harnessing of hydroelectric power in East Africa

Inadequate Infrastructure: One factor is inadequate infrastructure, like dams. Poor science engineering limits power generation, reducing energy access and geographic development potential in the region.

Environmental Concerns: Environmental impacts, like flooding, hinder projects. Dam construction disrupts ecosystems, necessitating geography studies on balancing science energy needs and conservation.

Funding Constraints: Limited funding restricts development. Insufficient investment in science hydro projects slows progress, challenging geographic energy solutions and regional growth.

Political Instability: Political conflicts delay initiatives. Disputes over science resources hinder dam cooperation, obstructing geographic energy harnessing and sustainable development efforts.

Geographical Challenges: Rugged terrain complicates construction. Mountainous areas limit science hydro potential, requiring geographic analysis for alternative energy strategies and regional stability.

SECTION C (30 Marks)

Answer two (02) questions from this section.

14. Critically examine five factors which support the statement that, "Geography subject is multi-disciplinary."

Integration with Science: One factor is integration with science, studying physical processes. Geography analyzes soil science for agriculture, linking disciplines, enhancing educational breadth and teaching effectiveness.

Connection to History: Geography connects to history, examining human patterns. It explores settlement history, supporting interdisciplinary learning and geography's multi-disciplinary nature in classrooms.

Link to Economics: It links to economics, analyzing resource use. Geography studies trade in tourism, integrating economic principles, broadening scope and educational impact across subjects.

Relation to Sociology: Geography relates to sociology, studying populations. It examines cultural impacts on land use, reinforcing multi-disciplinary approaches and geography learning outcomes.

Environmental Science Tie: Geography ties to environmental science, addressing ecosystems. It studies climate change effects on forests, supporting interdisciplinary education and geographic teaching depth.

15. Describe five strengths of using field trip method in process of teaching and learning Geography

Practical Experience: One strength is practical experience, offering hands-on learning. Field trips to study soil textures provide real-world geography insights, enhancing student comprehension and teaching effectiveness.

Engagement: Field trips increase engagement, making lessons interactive. Visiting earthquake zones excites students, boosting participation and retention, improving geography education outcomes.

Contextual Understanding: They provide contextual understanding, linking theory to place. Exploring drainage patterns in nature clarifies concepts, supporting effective geography teaching and learning.

Skill Development: Field trips develop skills, like observation. Students analyze tourism sites, enhancing science and geographic abilities, strengthening educational impact and classroom preparation.

Motivation: They motivate students, making learning enjoyable. Geography trips to rivers inspire interest, encouraging effort and academic progress, enhancing teaching quality and student outcomes.

16. Examine how inquiry mind can be developed to the learners. Give five points

Questioning Skills: One point is fostering questioning skills, encouraging curiosity. Teachers prompt geography students to ask about soil types, developing critical thinking and science inquiry in classrooms.

Hands-On Activities: Providing hands-on activities, like field trips, builds inquiry. Geography learners explore earthquakes firsthand, enhancing observation and problem-solving skills through experiential learning.

Group Discussions: Facilitating group discussions promotes inquiry. Geography classes debate tourism impacts, fostering collaboration and analytical thinking, strengthening educational engagement and inquiry development.

Research Projects: Assigning research projects, like on climate, develops inquiry. Geography students investigate patterns, building independence and science skills, enhancing learning outcomes and teaching effectiveness.

Scaffolded Guidance: Offering scaffolded guidance, like hints, supports inquiry. Teachers guide geography learners on drainage studies, gradually increasing autonomy, improving critical thinking and educational progress.