

Geography, 2017 EC, entrance exam, round 2, booklet 450

Grade 12 · Geography · 2017 E.C.

MARKING KEY — CONFIDENTIAL**Time allowed:** 120 minutes**Questions:** 98**Total marks:** 98

1. In which one of the following continents were the least COVID-19 cases reported in 2021? (1)
- A. Europe
B. ✓ **Africa**
C. South America
D. North America

Answer: B

Africa consistently reported the lowest cumulative number of confirmed COVID-19 cases among the permanently inhabited continents in 2021, largely due to younger demographics and lower diagnostic testing coverage.

2. Which one of the following is a reddish-brown toxic gas that causes air pollution? (1)
- A. Methane
B. Carbon monoxide
C. Sulphur dioxide
D. ✓ **Nitrogen dioxide**

Answer: D

Nitrogen dioxide (NO₂) is a prominent, pungent, reddish-brown toxic gas produced primarily by high-temperature fuel combustion in vehicles and power plants.

3. What causes soil contamination? (1)
- A. ✓ **Raw material leakage into the soil from industries**
B. Addition of different chemicals that were farmed
C. Keeping a farmland ideal for several years
D. Refusing to clean substances from the soil

Answer: A

Soil contamination occurs when hazardous substances such as industrial raw materials, chemicals, or petroleum products leak or spill directly into the soil.

4. How can the problems of environmental sustainability be reduced? (1)
- A. By reducing people's per-capita food consumption
B. ✓ **By abstaining from using non-renewable energy sources**
C. By helping governments to process its products
D. By promoting intensive application of agricultural inputs

Answer: B

A key pillar of environmental sustainability is shifting away from depletable, polluting non-renewable energy sources toward renewable and cleaner alternatives.

5. Which one of the following is the characteristic of environmental education? (1)
- A. It aims at encouraging maximum resource utilization.
 - B. ✓ **It is an interdisciplinary education for human being.**
 - C. It short term trainings on environmental issues.
 - D. It is limited to the natural aspect of an environment.

Answer: B

Environmental education is an interdisciplinary field that draws together natural sciences, social sciences, and humanities to foster holistic environmental awareness and stewardship.

6. Which type of environmental movement recommends promotion of property rights as a tool for conserving the environment? (1)
- A. Dark greens environmentalism
 - B. Population environmentalism
 - C. Preservation environmentalism
 - D. ✓ **Free market environmentalism**

Answer: D

Free-market environmentalism advocates that clearly defined, legally enforced private property rights provide the best incentives for conservation and sustainable resource management.

7. What distinguishes a population census from other sources of population data? (1)
- A. It is used to supplement data collected by other sources.
 - B. It is less expensive compared to other sources of data.
 - C. It collects data from merely a segment of the population.
 - D. ✓ **It is conducted at specified time interval.**

Answer: D

Periodicity is a defining universal feature of a population census; it is systematically conducted at regular, specified intervals (commonly every 10 years), whereas sample surveys cover only a segment of the population.

8. Which one of the following conditions characterizes a rural settlement? It is a settlement where (1)
- A. there is diverse economic base.
 - B. ✓ **isolated homesteads are the dominant.**
 - C. population density is higher than .
 - D. the service sector leads the economy.

Answer: B

Rural settlements are predominantly agricultural with lower population densities and frequently feature dispersed or isolated homesteads rather than service-dominated or highly diversified economies.

9. Which one of the following explains quaternary economic activities? (1)
- A. They are mainly engaged in extraction of raw materials.
 - B. They are concerned with distribution and provision of products.
 - C. ✓ **They involve specialized knowledge and skills.**
 - D. They focus on modification of raw materials by consumption.

Answer: C

Quaternary economic activities are knowledge-based sectors involving specialized skills, information processing, scientific research, and advanced management.

10. Of the following, which one is a natural cause of land use changes? (1)

- A. ✓ **Topography**
- B. Land policy
- C. Cultivation culture
- D. Farming mechanism

Answer: A

Topography is a natural physical factor influencing the slope, drainage, and suitability of land, whereas land policy, culture, and farming mechanisms are anthropogenic drivers of land use change.

11. Among the following, which one is an indirect use of natural vegetation? It serves as a (1)

- A. source of food.
- B. source of fuel wood.
- C. source of construction materials.
- D. ✓ **home of wild animals.**

Answer: D

Direct uses of vegetation involve harvesting tangible products such as food, timber, and fuelwood. Serving as a habitat for wildlife is an ecological or indirect benefit.

12. Which common natural vegetation of Ethiopia is widely used for making water pipe and fences? (1)

- A. Olea
- B. ✓ **Bamboo**
- C. Juniperus
- D. Podocarpus

Answer: B

Bamboo (notably highland bamboo, *Arundinaria alpina*) has hollow, sturdy, and flexible culms, traditionally making it ideal for constructing water pipes, fences, and local shelters in Ethiopia.

13. What is the main advantage of phosphates to a country? (1)

- A. Aesthetic value
- B. Raw materials for construction
- C. ✓ **Fertilizer making**
- D. Huge energy source

Answer: C

Phosphate rock is primarily mined and processed into chemical fertilizers that supply essential phosphorus for agricultural crop production.

14. Which branch of physical geography is concerned with the study of distribution of landforms and forces that change them? (1)

- A. ✓ **Geomorphology**
- B. Biogeography
- C. Climatology
- D. Oceanography

Answer: A

Geomorphology is the sub-discipline of physical geography that studies the origin, evolution, and spatial distribution of Earth's landforms and the processes acting on them.

15. What makes the subject of geography a science? (1)

- A. The subjective analysis of man and environment relationship
- B. The concern with religious and traditional practices
- C. ✓ **The systematic investigation and recording of phenomenon on earth**
- D. The emphasis on speculative philosophical idea

Answer: C

Geography is classified as a science because it employs systematic observation, empirical data collection, and rational analysis to study spatial phenomena across the Earth.

16. Among the following landforms, which one is formed when magma solidifies in a vertical or near vertical crack? (1)
- A. Batholith
 - B. Sill
 - C. Laccolith
 - D. ✓ **Dike**

Answer: D

A dike (or dyke) is a discordant, sheet-like body of intrusive igneous rock formed when magma intrudes and solidifies in vertical or steeply inclined fractures.

17. How do reverse faults occur? They occur due to the action of (1)
- A. coriolis forces.
 - B. ✓ **compressional forces.**
 - C. shearing forces.
 - D. tensional forces.

Answer: B

Reverse faults are caused by horizontal compressional forces that push tectonic blocks together, forcing the hanging wall upward relative to the footwall.

18. What can be the effect of an earthquake on buildings when it occurs with a magnitude of three on Richter scale? (1)
- A. Cracks appear on buildings.
 - B. It causes most buildings to collapse.
 - C. ✓ **The impacts are undetectable by humans.**
 - D. Total destruction and landslide happen.

Answer: C

According to the Richter magnitude scale, earthquakes below 3.4 are generally recorded only by seismographs and their impacts are undetectable by humans.

19. Which geologic process mainly involves the breaking of rocks into pieces and formation of new substances? (1)
- A. Sedimentation
 - B. Orogenesis
 - C. Deposition
 - D. ✓ **Weathering**

Answer: D

Weathering includes mechanical weathering, which breaks rocks into smaller fragments, and chemical weathering, which alters minerals to form new chemical substances.

20. What makes ocean water flow from the equator towards the pole? (1)
- A. Low precipitation
 - B. ✓ **High temperature**
 - C. Low wind speed
 - D. High pressure

Answer: B

Intense solar heating at the equator results in high water temperatures, causing thermal expansion of seawater that creates a subtle sea surface slope driving surface water toward the poles.

21. In which direction do pressure belts move from their average position during the north hemisphere's summer season? (1)
- A. Westwards
 - B. Eastwards
 - C. Southwards
 - D. ✓ **Northwards**

Answer: D

Global pressure belts and wind systems follow the apparent northward migration of the overhead sun during the Northern Hemisphere's summer season.

22. Why do we use the method of regional study? (1)
- A. To examine the natural resources of the entire earth
 - B. ✓ **To investigate different geographical environments**
 - C. To describe each element of the earth in detail
 - D. To study all aspects of the earth at a time

Answer: B

The regional approach in geography divides the Earth into distinct units to investigate and understand the unique environmental and human characteristics of different areas.

23. Which one of the following is among the characteristic of the Equatorial Rain Forest Region? (1)
- A. It is mainly inhabited by people who use modern technologies.
 - B. Its rainfall amount shows significant variation across months.
 - C. ✓ **It has low annual range of temperature.**
 - D. It forms a continuous belt around the world.

Answer: C

Due to consistent high solar radiation and near-equal day length throughout the year, the equatorial rainforest region has a very small annual range of temperature (often less than 3°C).

24. Of the following, which one is the characteristic of the Tropical Hot Deserts? (1)
- A. ✓ **They are known for plants with long roots.**
 - B. Their night time temperature is high.
 - C. Their winds are mainly cool and wet.
 - D. They are located along warm ocean currents.

Answer: A

Vegetation in tropical hot deserts consists primarily of xerophytic plants adapted to drought, many having exceptionally long taproots to draw moisture from deep groundwater.

25. Which land feature of Ethiopia separates the southeast highlands from the northern and southwestern highlands? (1)
- A. Western lowlands
 - B. Eastern lowlands
 - C. Central highlands
 - D. ✓ **Rift valley**

Answer: D

The Ethiopian Rift Valley runs diagonally across the country from northeast to southwest, clearly dividing the highlands into the northwestern and southeastern blocks.

26. Where are most of the lowlands of Ethiopia found? They are found in the (1)
- A. northern parts of the country.
 - B. ✓ **peripheral parts of the country.**
 - C. central parts of the country.
 - D. southwestern parts of the country.

Answer: B

In Ethiopia, the central part is dominated by elevated plateaus, while the lowlands encircle the country along its international border peripheries.

27. What is the prime importance of soil in agriculture? (1)
- A. Prevention of drought and flooding
 - B. ✓ **Provision of essential nutrients for plants**
 - C. Reducing of water percolation
 - D. Sinking of carbon concentration

Answer: B

For agricultural production, the most essential function of soil is to supply the necessary mineral nutrients, water, and mechanical support required for crop growth.

28. Globally which region is highly affected by HIV/AIDS? (1)
- A. ✓ **Sub-Saharan Africa**
 - B. Southeast Asia
 - C. Latin America
 - D. Oceania

Answer: A

Sub-Saharan Africa remains the region most severely affected by HIV/AIDS, accounting for the vast majority of all global infections and related deaths.

29. How does the economic policy of Ethiopia contribute to development? (1)
- A. Encourages citizens free access to resources
 - B. Prioritizes development projects over resource conservation
 - C. Promotes government-led resource management
 - D. ✓ **Raises public awareness on sustainable resource utilization**

Answer: D

Ethiopia's environmental and economic development strategies strongly emphasize raising public awareness and promoting community participation in sustainable resource utilization to achieve long-term development.

30. Which continent was a part of Gondwanaland? (1)
- A. North America
 - B. Asia
 - C. ✓ **Antarctica**
 - D. Europe

Answer: C

Gondwanaland was the southern supercontinent that broke away from Pangaea, consisting of present-day South America, Africa, Antarctica, Australia, the Indian subcontinent, and Arabia.

31. Why was Alfred Wegener's continental drift theory NOT easily accepted by the scientific community of the time? (1)
- This was due to
- A. his belief that Pangaea was broken before the Cenozoic Era.
 - B. the collection of most data from northern hemisphere.
 - C. ✓ **the lack of direct evidence for the movement of continents.**
 - D. the presentation of coastline similarity as an indicator of continental drift.

Answer: C

Wegener's continental drift hypothesis was largely rejected because he could not identify a convincing physical mechanism or direct physical proof explaining how solid continents could plow through the ocean floor.

32. How do transform fault boundaries occur? They occur when (1)
- A. two plates remain static.
 - B. ✓ plates slide past each other.
 - C. plates move away from each other.
 - D. two plates move towards each other.

Answer: B

Transform fault boundaries occur where tectonic plates slide horizontally past one another without producing or destroying lithosphere.

33. Which one of the following describes chemical weathering? It is the (1)
- A. ✓ change in minerals of rocks into new substance.
 - B. expansion and breaking of rocks due to frost.
 - C. peeling of rocks owing to temperature change.
 - D. process of condensation and deposition of rocks.

Answer: A

Chemical weathering involves chemical reactions that decompose and alter the original minerals of rocks into entirely new chemical substances, unlike mechanical weathering processes like frost wedging or exfoliation.

34. Which one of the following differentiates climate change mitigation strategies from adaptation? Mitigation strategies (1)
- A. ✓ strive to reduce the use of fossil fuels.
 - B. can be reactive or autonomous.
 - C. consider climate change as an opportunity rather than a challenge.
 - D. involve traditional soil conservation mechanisms.

Answer: A

Mitigation aims to tackle the causes of climate change by reducing greenhouse gas emissions (such as cutting fossil fuel consumption), whereas adaptation focuses on adjusting to the impacts of climate change.

35. Which one of the following statements is correct about the status of international conventions and agreements on climate change? (1)
- A. Developing countries are contributing more to the occurrence of climate change.
 - B. Issues of climate change at global scale came into being starting from the year 2000.
 - C. Several countries see climate change as a good opportunity for sustainable development.
 - D. ✓ Most countries recognize the use of renewable energy sources as a remedy for climate change.

Answer: D

International consensus and climate accords widely recognize the transition to renewable energy sources as one of the most vital solutions for combating climate change.

36. How does the expansion of hydroelectric power in Ethiopia help to reduce climate change? (1)
- A. ✓ By reducing reliance on non-renewable energy sources
 - B. By transforming the economy from agriculture to a service-based one
 - C. By expanding of manufacturing industries in the country
 - D. By discouraging the use of other energy sources than electricity

Answer: A

Hydroelectric energy is a clean, renewable energy source; its expansion reduces Ethiopia's dependence on greenhouse-gas-emitting fossil fuels and unsustainable biomass harvesting.

37. What is the core issue in the concept of sustainable development? (1)
- A. Applying a traditional way of resource conservation
 - B. ✓ **Keeping harmony between environment and development**
 - C. Promoting privatization of resource ownership
 - D. Maximizing human's utilization of nature

Answer: B

Sustainable development is fundamentally defined as meeting the needs of the present without compromising future generations, which requires maintaining harmony between socioeconomic progress and environmental protection.

38. What is the focus of the social dimension of sustainable development? (1)
- A. ✓ **Ensuring fair access to local services**
 - B. Offering special support for investors
 - C. Reducing the utilization of environmental resources
 - D. Prioritizing of human needs over the environment

Answer: A

The social pillar of sustainable development centers on human well-being, equity, social inclusion, and ensuring universal and equitable access to basic public and local services.

39. Which one of the following is the shortcoming of applying sustainable development? (1)
- A. Its exceptional benefit for all people
 - B. Its uniformity in understanding its goals
 - C. Its use of controversial methods
 - D. ✓ **Its broadness in nature**

Answer: D

A common critique and challenge of sustainable development is its broadness and vagueness in scope, which makes setting concrete metrics and implementation strategies difficult.

40. What does the concept of poverty imply? (1)
- A. The ability to lead a decent life
 - B. Shortage of natural resources
 - C. ✓ **Deficiency in basic human needs**
 - D. The incapability of using technologies

Answer: C

Poverty fundamentally denotes a state of deprivation where individuals lack the basic human necessities required for survival, such as adequate food, clean water, shelter, and health services.

41. Which one of the following explains the link between conflict and poverty? (1)
- A. Poverty and conflict have a one way link.
 - B. ✓ **Conflict and poverty are inseparable.**
 - C. Poverty prevents conflict to thrive.
 - D. Conflict can reduce the risk of poverty.

Answer: B

Poverty and conflict are deeply intertwined in a vicious cycle: poverty breeds grievances and competition over scarce resources that fuel conflict, while conflict destroys livelihoods and deepens poverty.

42. Which of the following is the manifestation of globalization in developing countries? (1)
- A. In the past developing countries shared similar economic integration with other countries.
 - B. It reduces trade relations of developing countries by creating trade barriers.
 - C. It helps developing countries setup their industries in developed countries.
 - D. ✓ **It encourages developing countries to remove tariff restriction from their market.**

Answer: D

Economic globalization promotes trade liberalization and structural adjustment, encouraging developing nations to eliminate trade barriers and reduce tariff restrictions.

43. How does trade imbalance negatively affect the economy of nations? (1)
- A. ✓ **By encouraging job outsourcing to foreign countries**
 - B. By attracting labor migration to these countries
 - C. By increasing consumption of domestic products
 - D. By enhancing reliance on export of goods and services

Answer: A

A persistent trade deficit and trade imbalance can harm a country's domestic manufacturing base, driving businesses to outsource jobs to countries with cheaper labor and lower production costs.

44. Where in Africa does the highest income inequality prevail? (1)
- A. Liberia
 - B. Mali
 - C. Mauritania
 - D. ✓ **South Africa**

Answer: D

South Africa has the highest income inequality not only in Africa but globally, consistently recording the highest Gini coefficient due to historical and structural disparities.

45. What is the type of corruption that involves the diversion of community funds from their intended use to individuals' pockets? (1)
- A. ✓ **Theft of public assets**
 - B. Nepotism
 - C. Kick-backs
 - D. Bribery

Answer: A

Theft of public assets (or embezzlement) involves public officials unlawfully misappropriating, diverting, or stealing public or community funds for private gain.

46. How does corruption affect economic development? (1)
- A. By reducing public spending
 - B. By increasing volume of private investments
 - C. ✓ **By delaying completion of projects**
 - D. By increasing tax revenues

Answer: C

Corruption introduces bureaucratic bottlenecks, misallocates resources, and compromises contractor selection, frequently leading to severe project delays, cost overruns, or abandoned infrastructure.

47. What issues were underlined by the 1994 Cairo International Conference on Population and Development? (1)
- A. Understanding population from inequitable and inhuman viewpoint
 - B. ✓ **The impact of consumption on the environment in developed nations**
 - C. Recognition of family planning as a sole means of reducing population
 - D. The effect of rapid population growth of developed countries on the environment

Answer: B

The 1994 Cairo Conference (ICPD) emphasized that environmental degradation is driven not only by population numbers in developing countries, but crucially by unsustainable patterns of consumption and production in developed countries.

48. What was the strategy used by Kenya to control population growth? (1)
- A. Empowering men
 - B. Child tax
 - C. ✓ **Family planning**
 - D. One child policy

Answer: C

Kenya was one of the first sub-Saharan African countries to introduce a national family planning program to manage its rapid population growth.

49. Which one of the following is an environmental implication of population growth? (1)
- A. Deterioration of social values
 - B. ✓ **Rapid depletion of natural resources**
 - C. Improvement in the provision of transport services
 - D. Increase in the number of unemployed people

Answer: B

The rapid depletion of natural resources is a direct environmental consequence of population growth, while poverty and unemployment are socio-economic implications.

50. Which one of the following is an indicator of a socially developed nation? (1)
- A. Higher prevalence of discrimination among population groups.
 - B. Lower proportion of population with access to sanitation service.
 - C. ✓ **Lower percentage of population living below poverty line.**
 - D. Higher percentage of underweight children in a population.

Answer: C

A lower percentage of the population living below the poverty line reflects improved living standards and greater social development.

51. How does a clinical health intervention model help achieving environmental health outcomes? (1)
- A. ✓ **By treating the already existing diseases**
 - B. By controlling disease causing agents
 - C. By reducing the occurrence of environmental hazards
 - D. By protecting human beings from environmental adversaries

Answer: A

Clinical health interventions are curative in nature and focus on diagnosing and treating existing diseases, whereas environmental health interventions focus on primary prevention.

52. Which one of the following is correct with regard to the principles of environmental health? (1)
- A. The health impact of environment is similar among countries.
 - B. Proximity to green areas is associated with higher health risks.
 - C. Environmental health risk is declining today compared to the past.
 - D. ✓ **Air pollution is the largest environmental health risk in the world.**

Answer: D

According to the World Health Organization (WHO), air pollution is recognized as the world's single largest environmental health risk.

53. What is the major cause for the prevalence of frequent weather changes in the Temperate Zone? (1)
- A. ✓ **The convergence of tropical and polar air masses**
 - B. The existence of equal length of day and night
 - C. The absence of dry landmass in the region
 - D. The prevalence of overhead sun throughout the year

Answer: A

Frequent weather fluctuations in the temperate zone are primarily driven by cyclonic activity along the polar front, where warm tropical air masses collide with cold polar air masses.

54. Which one of the following is the characteristic of Coniferous Forest Region? (1)
- A. It has fertile soil that supports rain-fed agriculture.
 - B. It is dominated by varied vegetation types.
 - C. ✓ **It is found only in the northern hemisphere.**
 - D. It experiences invariable temperature conditions.

Answer: C

The vast boreal coniferous forest (taiga) biome occurs almost entirely in the Northern Hemisphere across North America and Eurasia, as there is virtually no landmass at the corresponding latitudes in the Southern Hemisphere.

55. What is the distinctive feature of the Frigid Zone? (1)
- A. ✓ **Its inhabitants use simple technology to adapt the harsh conditions.**
 - B. Its common vegetation includes olive and small short trees.
 - C. Its temperature is above freezing point throughout the year.
 - D. It is only found in the southern hemisphere.

Answer: A

Traditional inhabitants of the Frigid Zone, such as the Inuit, historically relied on simple technologies, indigenous knowledge, and local materials to adapt to the extremely cold climate.

56. What differentiates the Polar Ice Cap region from Tundra? The Polar Ice Cap (1)
- A. has scattered permanent settlement.
 - B. receives higher amount of rainfall.
 - C. has relatively longer summer season.
 - D. ✓ **has extremely cold temperature.**

Answer: D

The Polar Ice Cap climate is characterized by perpetual frost with all monthly average temperatures below 0°C, making it significantly colder than the Tundra, which has at least one month averaging above freezing.

57. Which component of an ecosystem changes plant and animal remains in to soil? (1)
- A. Producers
B. ✓ **Decomposers**
C. Omnivores
D. Herbivores

Answer: B

Decomposers, such as bacteria and fungi, break down dead organic plant and animal remains into simple nutrients that form and enrich the soil.

58. What is the impact of development in transport and communication technology on the location of economic activities? (1)
- A. It has eliminated import and export trade from global market.
B. It has led to an increase in labor cost in production.
C. ✓ **It has enabled consumers to access perishable goods easily.**
D. It has caused location of industries to be raw material-oriented.

Answer: C

Advances in refrigeration and rapid transport technologies have expanded market access, allowing perishable commodities to reach consumers before spoiling.

59. Why did the global human population keep growing at high rates starting from the 15th century? (1)
- A. ✓ **The advancements in medical science and economy**
B. The need for more work force in agricultural activities
C. Growing interest in pro-natalist population policy
D. The genetic change in human reproduction system

Answer: A

Rapid population growth was primarily driven by improvements in medical knowledge, public sanitation, and economic productivity, which dramatically reduced death rates.

60. What progress has been achieved by Ethiopia in relation to sustainable development goals? (1)
- A. Reduction of inequalities among community members.
B. ✓ **Implementation of the Paris Climate Change Agreement**
C. Provision of quality education for the greedy
D. Eradication of poverty once and for all

Answer: B

Ethiopia has made notable commitments toward SDG 13 by implementing its Climate-Resilient Green Economy (CRGE) strategy under the Paris Climate Agreement.

61. Which one of the following is a non-renewable natural resource? (1)
- A. Air
B. Water
C. Soil
D. ✓ **Minerals**

Answer: D

Minerals are exhaustible, non-renewable resources formed over millions of years that cannot be naturally regenerated on a human timescale.

62. What type of scarcity is associated with a conflict arising between people due to unequal access to gold mine? (1)
- A. ✓ **Structural-induced scarcity**
 - B. Supply-induced scarcity
 - C. Population growth induced scarcity
 - D. Demand-induced scarcity

Answer: A

According to environmental scarcity theory, structural scarcity occurs when resources are concentrated in the hands of a few, resulting in unequal access and distribution.

63. If you are a member of an Environmental Protection Club in your locality, how would you ensure good governance of natural resources? (1)
- A. By guaranteeing the dominance of influential minority groups
 - B. By prohibiting the practice of environmental impact assessments
 - C. ✓ **By taking part in collaborative management practices**
 - D. By minimizing the level of community participation

Answer: C

Good governance of natural resources relies on inclusive, participatory, and collaborative co-management practices involving the local community.

64. Why are indigenous conflict resolution practices effective in reducing the acts of revenge, and bringing peace in the society? This is because (1)
- A. they prioritize punishments over dialogues and negotiations.
 - B. ✓ **the disagreements are resolved with compensation and reconciliation.**
 - C. the mediators enforce disputes to adhere to the formal laws.
 - D. they are pressed on strict formal legal system of the state.

Answer: B

Indigenous conflict resolution focuses on restorative justice through open dialogue, compensation, and reconciliation, which heals relationships and prevents revenge.

65. What is the central argument of radical theories on population growth and economic development? (1)
- A. Population growth is a key to attaining balanced economy development.
 - B. Population growth should be discouraged for better economic development.
 - C. Population growth has a neutral role in economic development.
 - D. ✓ **Population growth retards economic development.**

Answer: D

66. What is the success story of most developing countries that adopted anti-natalist population policy? (1)
- A. Providing incentives for females who give birth
 - B. Attracting immigrants from all over the world
 - C. Restricting the provision of family planning services
 - D. ✓ **Lowering the rate of fertility and population growth**

Answer: D

Anti-natalist policies aim to curb rapid population expansion, and their primary success in developing nations has been the reduction of total fertility and population growth rates.

67. How is lagoon formed by the action of sea waves? It is formed when (1)
- A. ✓ **an area of saltwater is separated from the sea by loose sandbanks.**
 - B. a strip of land closes the sea coast covered with sediments.
 - C. a sand hill is formed with a crescent moon shape.
 - D. a narrow ridge of sand is projected into sea and attached to land.

Answer: A

A lagoon is a shallow body of coastal water separated from the open sea by a barrier such as a sandbank, spit, or reef. Option D describes a spit, while option C describes a barchan dune.

68. Which one of the following is the feature of the Mesosphere? (1)
- A. It has the lowest air density among layers of the atmosphere.
 - B. It contains higher concentration of ozone gases.
 - C. It has constant temperature than the other layers.
 - D. ✓ **It experiences frequent meteorites burn and disintegration.**

Answer: D

The mesosphere is the atmospheric layer where most meteoroids burn up upon entering Earth's atmosphere due to friction with gas molecules. Ozone is concentrated in the stratosphere, not the mesosphere.

69. What is the major cause of frontal rainfall in high latitude areas? (1)
- A. Concentration of dense forest coverage in the area
 - B. Existence of high temperature throughout the year
 - C. ✓ **Convergence of warm and cold air masses**
 - D. Presence of large number of elevated landmasses

Answer: C

Frontal (cyclonic) rainfall occurs when warm, moist air converges with cold, dense polar air, causing the less dense warm air to rise, cool, and condense into rain.

70. What is the characteristic of the cumulonimbus cloud type? (1)
- A. It is free from strong winds and tornados.
 - B. ✓ **It is associated with lightning and heavy rain.**
 - C. It is the major type of low clouds.
 - D. It is thin and appears in sheets in sky.

Answer: B

Cumulonimbus clouds are dense, towering vertical clouds associated with extreme weather, including thunderstorms, heavy precipitation, and lightning.

71. A hypothetical town is located along the beach where its temperature is modified by the local wind. Which type of wind does this town commonly experiences during the daytime? (1)
- A. Land breeze
 - B. Mountain breeze
 - C. Valley breeze
 - D. ✓ **Sea breeze**

Answer: D

During the day, land heats up faster than the adjacent body of water, creating lower pressure over land and drawing cooler air from the water toward the coast as a sea breeze.

72. Why do many parts of Ethiopia experience a cooler temperature despite the country's location in the tropics? (1)
This is due to
- A. larger forest coverage of the country.
 - B. ✓ **higher elevated landmass of the country.**
 - C. the effect of cool ocean currents.
 - D. the larger land area of the country.

Answer: B

A significant portion of Ethiopia consists of high-elevation plateaus and mountains, which moderates tropical temperatures because temperature decreases with increasing altitude (normal lapse rate).

73. Why are coastal regions cooler than inland regions? This is because (1)
- A. the sea loses heat more quickly than the land.
 - B. the land has more consistent temperature than the sea.
 - C. ✓ **rapid temperature change occurs on the land than the sea.**
 - D. the sea heats more quickly than the land.

Answer: C

Land has a lower specific heat capacity than water, meaning it heats up and cools down much more rapidly than the sea, causing inland areas to become hotter during warm periods.

74. Why is climate change becoming a pressing environmental issue of the current time? It is because (1)
- A. its effect is easily reversed and controlled with little effort.
 - B. ✓ **it severely threatens the human and natural system of the world.**
 - C. its causes are mainly attributed to natural factors and process.
 - D. its impact is confined to developed nations of the world.

Answer: B

Climate change is a pressing global issue because it poses severe threats to biodiversity, ecosystems, food security, and human socio-economic systems worldwide.

75. Which one of the following is the effect of desertification? (1)
- A. It allows the rapid regeneration of soil resource.
 - B. It increases the quality of water in downstream areas.
 - C. ✓ **It enhances the vulnerability of the land to climate change.**
 - D. It raises the agricultural productive capacity of the land.

Answer: C

Desertification degrades productive land and strips away vegetative cover, increasing the ecosystem's and human communities' vulnerability to climate extremes like droughts.

76. Which one of the following is being practiced in Ethiopia to combat desertification? (1)
- A. ✓ **The green legacy program**
 - B. The dry land development project
 - C. The urban safety net program
 - D. Presidential project on soil erosion

Answer: A

Ethiopia's Green Legacy Initiative is a flagship nationwide afforestation and reforestation campaign aimed at combating land degradation, deforestation, and desertification.

77. What type of drought occurs when a soil moisture deficit happens consistently? (1)
- A. Intermittent drought
 - B. Meteorological drought
 - C. Hydrological drought
 - D. ✓ **Agricultural drought**

Answer: D

Agricultural drought is specifically characterized by a deficit in soil moisture that is insufficient to meet crop water requirements, distinguishing it from meteorological (precipitation deficit) and hydrological (surface/subsurface water shortage) droughts.

78. Among the following, which one explains the incidence of famine? (1)
- A. Recently, its frequency is increasing in Western Europe.
 - B. The most disastrous famine in Ethiopia took place in 1990s.
 - C. ✓ **During the 19th century, the "Great Famine" occurred in Ireland.**
 - D. Its occurrence was rare during middle ages in Europe.

Answer: C

The Great Famine of Ireland occurred between 1845 and 1852 (19th century), triggered by potato blight. Famines in the European Middle Ages were actually frequent, and Ethiopia's deadliest modern famine occurred in 1984–1985, not the 1990s.

79. What is the distinctive nature of geographic research? (1)
- A. ✓ **Its focus on resulting patterns and interaction**
 - B. Its focus on economic activities of the world
 - C. Its emphasis on weather forecasting of an area
 - D. Its emphasis on qualitative analysis methods

Answer: A

Geography is uniquely characterized by its spatial perspective, focusing on the spatial distribution of phenomena, resulting spatial patterns, and human-environmental interactions.

80. What differentiates the qualitative research approach from the quantitative one? A qualitative research approach (1)
- A. employs designs and graphs for data presentation.
 - B. ✓ **uses extensive descriptive data for analysis.**
 - C. applies statistical method for data analysis.
 - D. utilizes measures that produce discrete data.

Answer: B

Qualitative research relies primarily on non-numerical, extensive descriptive and narrative data (such as interviews and observations), whereas quantitative research utilizes statistical analysis and numerical measurements.

81. What makes a research methodology different from a research method? (1)
- A. Its consideration of statistical tools
 - B. Its focus on research techniques
 - C. ✓ **Its wider dimension**
 - D. Its narrower scope

Answer: C

Research methodology is the broader theoretical and philosophical framework that guides a study, giving it a much wider dimension than research methods, which are the specific tools and techniques used to collect and analyze data.

82. Which element of research presents what is already known about the research topic by other studies? (1)
- A. Sampling procedure
 - B. Objectives of the research
 - C. Research questions
 - D. ✓ **Literature review**

Answer: D

A literature review provides a comprehensive synthesis of existing knowledge, theories, and previous research findings relevant to the topic being investigated.

83. How does sheet erosion occur? It occurs when surface water (1)
- A. joins each other and cuts ditches.
 - B. cuts small channels.
 - C. ✓ **moves in a wide flow.**
 - D. flows with high speed.

Answer: C

Sheet erosion involves the uniform removal of a thin layer of topsoil by runoff water moving as a wide, continuous flow (sheet) across the surface, rather than forming concentrated channels (rills or gullies).

84. What is the major cause of mass wasting in an area? (1)
- A. Rotation of the earth
 - B. Dry climatic condition
 - C. Angle of the sun
 - D. ✓ **Gravity of the earth**

Answer: D

Mass wasting refers to the downslope movement of rock, regolith, and soil driven directly by the gravitational pull of the Earth.

85. What is the effect of folding on the earth's surface? (1)
- A. It is a cause for the origin of the Afro-hoest mountain.
 - B. ✓ **It is responsible for the formation of the Atlas Ranges.**
 - C. It is a cause for the existence of the Ethiopian highlands.
 - D. It results in the creation of the rift valley.

Answer: B

The Atlas Mountains in Northwest Africa were formed by tectonic folding resulting from the collision between the African and Eurasian plates. The Ethiopian Highlands were formed primarily by uplift and volcanism, while rift valleys and horsts are caused by faulting.

86. Which one of the following countries lies in the Pacific Ring of Fire? (1)
- A. Sweden
 - B. Botswana
 - C. Australia
 - D. ✓ **Japan**

Answer: D

Japan is located along the Pacific Ring of Fire, a major area in the basin of the Pacific Ocean where many earthquakes and volcanic eruptions occur due to plate subduction.

87. What does climate change refer to? (1)
- A. It is the difference in climatic conditions of two areas.
 - B. It is a seasonal fluctuation in the elements of climate.
 - C. ✓ **It is a long time persistent variability in the properties of climate.**
 - D. It is a short term change in character of elements of climate.

Answer: C

Climate change is defined as a statistically significant and persistent variation in the mean state of the climate or its variability, lasting for extended periods (typically decades or longer).

88. Which one of the following shows the global trends of climate change? (1)

- A. ✓ **Human activities have a strong association with rising temperature.**
- B. The earth is experiencing lower temperature today than before.
- C. The impacts of climate change are lesser today than before.
- D. Climate change uniformly occurs on the surface of the earth.

Answer: A

Global observations confirm that anthropogenic activities, especially greenhouse gas emissions, are strongly correlated with rising global temperatures.

89. Which one of the following is the major anthropogenic cause for climate change? (1)

- A. Continuous efforts on afforestation and reforestation
- B. ✓ **Continued emission of greenhouse gases from industries**
- C. The rising level of photosynthesis process around the equator
- D. Variations on the strength of sun's rays through time

Answer: B

Anthropogenic causes are those resulting from human activity, the primary driver being industrial and fossil fuel greenhouse gas emissions.

90. What do the closely spaced isobars imply on weather maps? (1)

[Figure: Photographed table headed 'Months' printed above the group of questions. The left-hand columns are labelled 'Station' and 'Items'; the station letter 'K' is printed in the Station column beside the rainfall row. Twelve month columns are headed J, F, M, A, M, J, J, A, S, O, N, D. Row 'Temp (OC)': 31, 32, 32, 30, 29, 30, 29, 29, 30, 29, 28, 30. Row 'Rainfall (mm)': 2, 1, 19, 110, 46, 2, 1, 1, 2, 87, 79, 15. The degree sign in the temperature row is printed as a superscript zero, 'Temp (OC)'.]

- A. High temperature
- B. Low wind speed
- C. ✓ **High pressure gradient**
- D. Low pressure gradient

Answer: C

Isobars that are placed closely together indicate a rapid change in atmospheric pressure over a short distance, representing a steep or high pressure gradient.

91. During which month does the station 'K' have the lowest average temperature record? (1)

[Figure: Photographed table headed 'Months' printed above the group of questions. The left-hand columns are labelled 'Station' and 'Items'; the station letter 'K' is printed in the Station column beside the rainfall row. Twelve month columns are headed J, F, M, A, M, J, J, A, S, O, N, D. Row 'Temp (OC)': 31, 32, 32, 30, 29, 30, 29, 29, 30, 29, 28, 30. Row 'Rainfall (mm)': 2, 1, 19, 110, 46, 2, 1, 1, 2, 87, 79, 15. The degree sign in the temperature row is printed as a superscript zero, 'Temp (OC)'.]

- A. March
- B. ✓ **November**
- C. May
- D. February

Answer: B

From the data table for station 'K', the lowest recorded temperature is 28°C, which occurs in the 11th column corresponding to November.

92. What is the Net Migration Rate (NMR) of the region?

(1)

[Figure: Photographed two-column table of demographic data for a hypothetical region, label on the left and value on the right, with no column headings. Total population 67,400,000. Number of live birth in the year 2,300,000. Number of deaths below age of 1 year 78,000. Number of Immigrants 509,100. Number of Emigrants 323,100. Total death 392,200. Male population 33,983,200.]

A. ✓ 2.8/1000

B. 7.6/1000

C. 4.8/1000

D. 5.6/1000

Answer: A

Net Migration Rate = ((Immigrants - Emigrants) / Total Population) × 1000 = ((509,100 - 323,100) / 67,400,000) × 1000 = (186,000 / 67,400,000) × 1000 ≈ 2.76 per 1,000, which rounds to 2.8/1000.

93. What is the Infant Mortality Rate (IMR) of the region?

(1)

[Figure: Photographed two-column table of demographic data for a hypothetical region, label on the left and value on the right, with no column headings. Total population 67,400,000. Number of live birth in the year 2,300,000. Number of deaths below age of 1 year 78,000. Number of Immigrants 509,100. Number of Emigrants 323,100. Total death 392,200. Male population 33,983,200.]

A. 4.1%

B. 2.1%

C. 5.4%

D. ✓ 3.4%

Answer: D

Infant Mortality Rate as a percentage = (Deaths under 1 year / Total live births) × 100 = (78,000 / 2,300,000) × 100 ≈ 3.39%, which rounds to 3.4%.

94. What is the type of contour line represented by letter 'G' on the map?

(1)

[Figure: Photographed contour (topographic) map, roughly square, with a north arrow marked 'N' in the top right corner. Longitude ticks along the bottom edge read 37°10'0"E, 37°20'0"E, 37°30'0"E, 37°40'0"E and 37°50'0"E. Latitude ticks along the left edge read 10°50'0"N, 11°0'0"N, 11°10'0"N and 11°20'0"N, so consecutive lines of latitude are ten minutes apart. Thick contours alternate with several thin contours between them. Contour values printed on the sheet: 1800 on a thick contour in the north east, 2400 on a thick contour running west to east across the upper middle of the map, 3000 on each of two small closed contour rings near the centre left, 3000 on a thick contour in the south east and 3600 near the south east corner. A point marked 'M' sits in the north west of the map on open ground where the contours are widely spaced. A point marked 'G' sits directly on the thick contour labelled 2400, roughly at 37°31'E, 11°15'N. The letter 'H' is printed in the centre of the map, in the gap between the two small closed 3000 rings, that is on the low ground between the two summits. A band of very closely spaced contours runs from the centre of the map down towards the south, and another band of closely spaced contours climbs the south east corner.]

A. Intermediate contour

B. Supplementary contour

C. Regular contour

D. ✓ Index contour

Answer: D

Contour line 'G' is a heavier, thicker line labelled with its elevation (2400 m), which by definition is an index contour.

95. What is the relief feature indicated by letter 'H' on the map? (1)

[Figure: Photographed contour (topographic) map, roughly square, with a north arrow marked 'N' in the top right corner. Longitude ticks along the bottom edge read 37°10'0"E, 37°20'0"E, 37°30'0"E, 37°40'0"E and 37°50'0"E. Latitude ticks along the left edge read 10°50'0"N, 11°0'0"N, 11°10'0"N and 11°20'0"N, so consecutive lines of latitude are ten minutes apart. Thick contours alternate with several thin contours between them. Contour values printed on the sheet: 1800 on a thick contour in the north east, 2400 on a thick contour running west to east across the upper middle of the map, 3000 on each of two small closed contour rings near the centre left, 3000 on a thick contour in the south east and 3600 near the south east corner. A point marked 'M' sits in the north west of the map on open ground where the contours are widely spaced. A point marked 'G' sits directly on the thick contour labelled 2400, roughly at 37°31'E, 11°15'N. The letter 'H' is printed in the centre of the map, in the gap between the two small closed 3000 rings, that is on the low ground between the two summits. A band of very closely spaced contours runs from the centre of the map down towards the south, and another band of closely spaced contours climbs the south east corner.]

- A. ✓ Saddle
B. Depression
C. Valley
D. Ridge

Answer: A

The point 'H' is located in the low-lying dip between two adjacent hilltops or closed summits (represented by the two 3000 m contour rings), which is a saddle.

96. Which one of the following is considered as the limitation of indigenous conflict resolution practices in Ethiopia? (1)

- A. They have no recognition by majority of the community.
B. ✓ They favor only a certain member of a society.
C. They are viewed as an alternative to the formal legal system.
D. They have long bureaucratic procedures in handling conflicts.

Answer: B

A major criticism and limitation of traditional or indigenous conflict resolution mechanisms is their patriarchal nature, which often excludes or disadvantages women and young people, thereby favoring certain demographic groups (primarily elder males).

97. How does urban land use differ from rural land use? It differs by its (1)

- A. very low divisions of labor.
B. limited diversity of economic sectors.
C. lesser population density.
D. ✓ close construction of settlements.

Answer: D

Urban areas are characterized by high population density, compact spatial development, and closely constructed infrastructure and settlements compared to dispersed rural land use.

98. What anticipatory climate change adaptation strategy can be proposed for people living in flood prone areas? (1)

- A. Helping the people to replant crops damaged by flooding
B. Provide relief aid for the people affected by the flood
C. Paying compensation for the damage caused by the flood
D. ✓ Relocating of the people to other areas before flooding

Answer: D

Anticipatory (proactive) adaptation involves taking action before climate impacts occur, such as planned relocation or early evacuation, whereas replanting, compensation, and relief aid are reactive post-disaster measures.

— END OF MARKING KEY —