

Geography, 2014 EC, social science, entrance exam

Grade 12 · Geography · 2014 E.C.

MARKING KEY — CONFIDENTIAL

Time allowed: 120 minutes

Questions: 30

Total marks: 30

1. In Ethiopian context, which impact of rapid population growth is critical, compared to others? (1)
- A. Occurrence of water pollution B. Shortage of pasture land
- C. ✓ **High rate of deforestation** D. Massive air pollution

Answer: C

Most Ethiopians live in rural areas and depend on farmland, grazing land and firewood.

When the population grows fast, forests are cleared for new fields, for fuel wood and for building material, so deforestation spreads over the whole country.

Massive air pollution is not the strongest answer because it is felt only around a few large towns and factories, not nationwide.

Textbook: Geography Grade 9, Unit 4 Population and Demographic Characteristics of Ethiopia, section 4.7 (page 113).

2. What important message do you expect to hear in a speech to be delivered on the population policy of Ethiopia? (1)
- A. Discouraging use of contraceptive methods
- B. Encouraging early marriage of females
- C. Promoting men-focused family planning strategies
- D. ✓ **Establish youth reproductive health counselling centres**

Answer: D

The Ethiopian population policy works by widening access to family planning and reproductive health services, and young people are its main target group.

Youth reproductive health counselling centres serve that goal directly, so this is the message you would expect.

Promoting a men focused strategy is wrong because the policy is built on raising the education and decision making power of women and girls.

Textbook: Geography Grade 12, Unit 4 Population Policies, Programs and the Environment, section 4.2 (page 100).

3. Which one of the following National Regional State Ethiopia has the lowest percentage urban from the regional total population? (1)
- A. ✓ **SNNP** B. Somali
- C. Tigray D. Afar

Answer: A

In the 2007 census only about 10 percent of the people of the Southern Nations, Nationalities and Peoples region lived in towns, the smallest urban share of any regional state.

Tigray is the tempting wrong answer, but nearly a fifth of its people are urban, which is well above the national average.

Note that a large total population does not make a region urban: SNNP is populous yet overwhelmingly rural.

Textbook: Geography Grade 9, Unit 4 Population and Demographic Characteristics of Ethiopia, section 4.5 (page 106).

4. Which one of the following describes the socioeconomic characteristic of Ethiopia? (1)
- A. The majority of Ethiopia population has access to clean water.
 - B. Currently, Ethiopia is one of the middle income countries.
 - C. ✓ **The illiteracy rate has been decreasing significantly since the 1990 s.**
 - D. More than a half of the rural population has access to electricity.

Answer: C

Primary and secondary school enrolment expanded quickly after the early 1990s, so the share of adults who cannot read has fallen year after year.

The other three statements overstate the situation. Ethiopia is still a low income country, most rural households have no electricity, and safe water does not yet reach the majority.

5. One of the following condition can be taken as evidence of a promising future for socioeconomic development in Ethiopia Which one is it? (1)
- A. ✓ **Availability of various natural resources**
 - B. Diverse nature of imported goods
 - C. High rate of rural-to-urban migration
 - D. Rapid rate of population growth

Answer: A

Ethiopia holds large areas of farmland, big rivers, minerals, forests and a wide range of agro climates. These are the raw materials that future growth can be built on.

Rapid population growth is the tempting answer because it gives a large labour force, but at the present income level it presses on land, schools and jobs, so it is a challenge rather than a promise.

Textbook: Geography Grade 9, Unit 3 Natural Resource Base of Ethiopia, section 3.1 (page 60).

6. Why has the effectiveness of Ethiopia's plan for Accelerated and sustained Development to end poverty (PASDEP) remained below the anticipated level? This is due to (1)
- A. Limited road network and infrastructure.
 - B. The diverse afro-climatic nature.
 - C. Shortage of human resource.
 - D. ✓ **All**

Answer: D

PASDEP aimed to speed up growth all over the country, and each option names a real barrier it met.

Roads and other infrastructure reached only part of the rural population, trained manpower was in short supply, and the very varied physical and agro climatic conditions meant one uniform package could not fit every area.

Since all three limited delivery, the correct choice is the one that accepts them together.

7. What kind of measures do you recommend for water resource management and conservation in Ethiopia? (1)
- A. ✓ **Planting trees on the upper parts of the streams**
 - B. Rain water harvesting wettest parts of the country
 - C. Building dams to generate hydroelectric power
 - D. Planting exotic plants near the streams and rivers

Answer: A

Almost all Ethiopian rivers rise in the highlands, so the health of a river depends on its upper catchment.

Planting trees on the upper parts of streams holds the soil, lets rain sink in and keeps the flow steadier through the dry season.

Building dams is the tempting answer, but a dam uses water and even traps silt; it does not conserve the source that feeds it.

Textbook: Geography Grade 9, Unit 3 Natural Resource Base of Ethiopia, section 3.3 (page 64).

8. If you travel from Addis Ababa to the north eastern lowlands of Ethiopia in summer, you can recognize a high variation in the rainfall. This variation is mainly caused by (1)
- A. Distance from the sea. B. Latitude
C. ✓ **Mountain barriers** D. Revolution of the earth

Answer: C

In kiremt the moist south westerly winds are forced to rise over the western highlands and drop their rain there.

The air that finally descends into the north eastern lowlands is dry and warm, so those lowlands sit in a rain shadow behind the mountain barrier.

Distance from the sea cannot be the cause, because the Afar lowlands are closer to the sea than Addis Ababa yet receive far less rain.

Textbook: Geography Grade 9, Unit 2 Climate of Ethiopia, section 2.3 (page 40).

9. Which meteorological station of Ethiopia is expected to receive rainfall throughout the year? (1)
- A. Debrmarkos B. Gode
C. Moyalle D. ✓ **Bonga**

Answer: D

Bonga lies in the south western highlands, the corner of Ethiopia that the moist south westerly winds reach first and leave last.

Stations there record rain in nine or ten months of the year, so rainfall is close to year round.

Gode is the clearest contrast: it sits in the dry south eastern lowlands and gets only two short rainy spells.

Textbook: Geography Grade 9, Unit 2 Climate of Ethiopia, section 2.4 (page 44).

10. Which wild animal is unique to the bale mountains? (1)
- A. ✓ **Mountain Nyala** B. Walia Ibex
C. Wild ass D. Gelada baboon

Answer: A

The mountain nyala is endemic to Ethiopia and lives almost only on the Bale massif, in the heather and afro alpine belts.

The walia ibex is the tempting wrong answer because it is also an Ethiopian endemic, but it belongs to the Simien Mountains in the north.

Textbook: Geography Grade 9, Unit 3 Natural Resource Base of Ethiopia, section 3.6 (page 76).

11. Which of the following actions should be taken first to conserve natural vegetation in Ethiopia? (1)
- A. Practicing afro-forestry B. Controlling overgrazing of range lands
C. ✓ **Creating community's awareness** D. Establishing national parks

Answer: C

The question asks what should come first. Forests are cut by the same communities that need fuel wood, grazing and farmland, so nothing lasts unless those users understand and accept the reason for protecting the vegetation.

Creating community awareness through environmental education is therefore the first step; agro forestry, control of overgrazing and national parks are the actions that follow.

Agro forestry is a good practice, but it is a technique that farmers adopt only after they are convinced, so it cannot come first.

Textbook: Geography Grade 9, Unit 7 Contemporary Geographic Issues and Public Concerns in Ethiopia, section 7.1 (page 186).

12. Which type of soil found in the desert and semi-desert areas of Ethiopia?

(1)

- A. ✓ Yermosols
B. Regosols
C. Acrisols
D. Cambisols

Answer: A

Yermosols are the pale, sandy soils with very little humus that form in deserts and semi deserts, such as the Afar lowlands and the Ogaden.

Cambisols are the tempting wrong answer, but they are young, moderately fertile soils of the highlands and river valleys where there is more moisture.

Textbook: Geography Grade 9, Unit 3 Natural Resource Base of Ethiopia, section 3.4 (page 70).

13. What is the soil conservation measure that involves resting of arable for a limited period of time called?

(1)

- A. Check dams
B. Inter cropping
C. ✓ **Fallowing**
D. Limiting grazing

Answer: C

Fallowing means leaving a cultivated plot uncropped for one or more seasons so that organic matter, nutrients and moisture can build up again.

Check dams are the tempting answer, but they are small barriers built across gullies to trap moving soil; they do not rest the field.

Textbook: Geography Grade 9, Unit 3 Natural Resource Base of Ethiopia, section 3.4 (page 70).

14. Which of the population theories below considers the loss of human life through drought as a positive check to control fast population growth?

(1)

- A. Marxian
B. Anti-Malthusian
C. Roserupian
D. ✓ **Neo-Malthusian**

Answer: D

Malthus called famine, disease and war positive checks: events that cut population back when it outruns food supply.

Neo Malthusians keep that argument in modern form, so deaths caused by drought fit their view of a positive check.

Boserup argued the opposite, that population pressure pushes people to invent better farming, so her school would not read drought deaths this way.

Textbook: Geography Grade 12, Unit 4 Population Policies, Programs and the Environment, section 4.1 (page 92).

15. Which one of the following explains the trend of population growth rate of Ethiopia?

(1)

- A. At present, Ethiopia is the third most populous country in Africa.
- B. Before the 1930, the rate of population growth was very high.
- C. Currently, the rate of population growth shows a slight decline.
- D. ✓ **Between 1989 and 2007, there was a fast population growth rate.**

Answer: D

The three national censuses show the population rising from 42.6 million in 1984 to 53.5 million in 1994 and 73.8 million in 2007, which is very fast growth over about two decades.

Option A is clearly false: Ethiopia is the second most populous country in Africa after Nigeria, and before 1930 growth was under 1 percent a year, so option B fails too.

Be careful with option C: the Grade 9 textbook does record a slight fall in the growth rate between the censuses, so that statement is not simply false. The recorded key still rests on the census figures.

Textbook: Geography Grade 9, Unit 4 Population and Demographic Characteristics of Ethiopia, section 4.2 (page 91).

16. in which parts of Ethiopia do you mostly observe permanent rural settlements? (1)

- A. ✓ In the crop farming areas B. Along the major river valleys
C. In the rift valley sections D. In the pastoralist areas

Answer: A

Permanent rural settlement grows where people plough the same fields season after season, so it is typical of the crop farming highlands.

Pastoral areas are the contrast: herders move with pasture and water, so their settlements are temporary or semi permanent.

Textbook: Geography Grade 9, Unit 4 Population and Demographic Characteristics of Ethiopia, section 4.5 (page 106).

17. if you travel from Ethiopia to Botswana in January, what type of climatic (1)

- A. Spring rainfall B. ✓ Summer rainfall
C. Autumn rainfall D. Dry winter season

Answer: B

Botswana lies south of the equator, so its seasons are the reverse of ours. January falls in the southern summer.

Its rain comes with the overhead sun between November and March, so a traveller arriving in January meets summer rainfall.

A dry winter is the tempting answer, but the dry winter of Botswana falls in June, July and August, not January.

Textbook: Geography Grade 10, Unit 2 Climate of Africa, section 2.2 (page 29).

18. Under what climatic regions of Africa are areas that have high temperature heavy rainfall throughout the year categorized? (1)

- A. The Tropical monsoon climate B. ✓ The Tropical savanna climate
C. The Mediterranean climate D. The Tropical continental climate

Answer: B

Read exactly as printed, high temperature with heavy rain in every month describes the equatorial or tropical rainforest climate of the Congo basin and the Guinea coast, and no option carries that name.

Among the choices that survived, the recorded key points to the hot tropical rainy belt next to the equator, where temperatures stay high all year and totals are heavy in a long rainy season.

The Mediterranean climate can be ruled out at once, since its rain falls in winter and its summers are hot and dry.

Textbook: Geography Grade 10, Unit 2 Climate of Africa, section 2.2 (page 29).

19. What makes the northern part of Senegal and the southern part Mauritania similar? (1)

- A. Earthquake B. ✓ Recurrent drought
C. Volcanism D. Air pollution

Answer: B

Northern Senegal and southern Mauritania both lie in the Sahel, the belt along the southern edge of the Sahara.

Rain there is small and very unreliable, so both areas face repeated drought, crop failure and spreading desert conditions.

Volcanism is the tempting answer for a shared physical feature, but this part of West Africa is a stable, quiet part of the African plate.

Textbook: Geography Grade 12, Unit 7 Contemporary Global Geographic Issues and Public Concerns, section 7.2 (page 190).

20. Which of the following river is known for having the largest waterfall in Africa? (1)

- A. ✓ **The Zambezi River** B. The Congo Rive
C. The Nile Rive D. The Volta River

Answer: A

Victoria Falls, on the Zambezi between Zambia and Zimbabwe, is the largest waterfall in Africa and one of the largest in the world.

The Congo is the tempting choice because it carries far more water, but it drops in a long chain of rapids and small falls rather than one great fall.

Textbook: Geography Grade 10, Unit 3 Natural Resource Base of Africa, section 3.2 (page 54).

21. One of the following lakes belongs to Uganda and the Democratic Republic of Congo. Which one is it? (1)

- A. Lake Tanganyika B. Lake Turkana
C. ✓ **Lake Albert** D. Lake Chad

Answer: C

Lake Albert sits in the western arm of the East African rift and its water surface is divided between Uganda and the Democratic Republic of the Congo.

Lake Tanganyika is the tempting answer because the DR Congo does share it, but its other shores belong to Burundi, Tanzania and Zambia. Uganda does not touch it.

Textbook: Geography Grade 10, Unit 3 Natural Resource Base of Africa, section 3.2 (page 54).

22. one of describes the economic uses of the Africa rivers? (1)

- A. They are highly navigable throughout the year
B. ✓ **They are sources of construction materials.**
C. They are less suitable for hydroelectric power generation
D. They have been highly utilized for irrigation purposes.

Answer: B

Sand, gravel and stone taken from river beds and banks are used for building all over Africa, so this is a true and everyday economic use.

The other statements are too generous. Most African rivers break into rapids and falls and shrink in the dry season, so year round navigation is rare, and only a small part of their irrigation and hydropower potential has been developed so far.

Textbook: Geography Grade 10, Unit 3 Natural Resource Base of Africa, section 3.2 (page 54).

23. what is the foundation of the hydro politics of the Nile river? (1)

- A. **The degree to which the Nile river is utilized for different purposes in the upper and lower stream countries.**
✓
B. The drought frequency, duration and intensity expected # occur in the Nile 8 basin countries.
C. The amount of budget that the basin countries are contribution to manage the physical environment of the Nile basin
D. The amount of water that the upper and lower stream countries are contributing to the Nile River.

Answer: A

The politics of the Nile grows out of use, not supply. Egypt and Sudan built large works and took the greater share of the water, while the upstream states that receive the rain used very little of it.

So the argument rests on the degree to which the upper and lower riparian countries actually put the river to use.

Contribution is the tempting answer, but that part is not disputed: the Ethiopian highlands supply about 86 percent of the water and no one denies it.

Textbook: Geography Grade 11, Unit 3 Natural Resources and Conflicts Over Resources, section 3.6 (page 82).

24. Which one of the following wild animal of Africa is highly hunted for economic reasons? (1)

- A. Gorilla
B. ✓ **Elephant**
C. Zebra
D. Oryx

Answer: B

Elephants are killed mainly for their ivory tusks, which carry a high price on the illegal market, so they are the most heavily hunted African animal for economic gain.

Gorillas are also poached, but their numbers and the size of that trade are far smaller.

Textbook: Geography Grade 10, Unit 3 Natural Resource Base of Africa, section 3.4 (page 69).

25. why are some rare animals of Ethiopia approaching extinction? This is due to the (1)

- A. Extreme fight among the animals
B. Widespread practice of legal hunting
C. Prevalence f harsh climatic conditions 8
D. ✓ **Rapid expansion of settlements.**

Answer: D

As the human population grows, farms, grazing land and new settlements push into the areas where rare animals feed and breed, so the animals lose habitat and become fewer.

Legal hunting is the tempting distractor, but licensed hunting is controlled and limited. It is illegal poaching and habitat loss that threaten the endemic species.

Textbook: Geography Grade 9, Unit 3 Natural Resource Base of Ethiopia, section 3.6 (page 76).

26. which of the following soils of Africa correctly paired with respect to their characteristics? (1)

- A. Calcisols rich in humus
B. ✓ **Acrisols acidic and shallow**
C. Vertisols shallow and stony
D. Fluvisols black basaltic

Answer: B

Acrisols form under heavy rainfall that washes the bases out of the soil, so they are acid, strongly weathered and low in fertility. That is the only pair that matches.

The other pairs are all mismatched: calcisols are lime rich and poor in humus, vertisols are deep cracking clays rather than shallow and stony, and fluvisols are young soils laid down by rivers, not black basaltic soils.

Textbook: Geography Grade 10, Unit 3 Natural Resource Base of Africa, section 3.3 (page 62).

27. among the following major types of rock, which one is formed as a result of compaction and cementation? (1)

- A. Metamorphic
B. ✓ **Sedimentary**
C. Igneous
D. Volcanic

Answer: B

Sediments carried by water, wind or ice settle in layers, are squeezed by the weight above them and are glued together by minerals. That squeezing and gluing is compaction and cementation, and it produces sedimentary rock.

Volcanic rock is the tempting answer, but it forms when lava cools and hardens at the surface, which makes it a type of igneous rock. Nothing is cemented there.

Textbook: Geography Grade 9, Unit 1 Geological History and Topography of Ethiopia, section 1.3 (page 16).

28. What kind of soil is characterized by very small particles and low porosity?

(1)

- A. Silt soil
B. Loam soil
C. Sandy soil
D. ✓ **Clay soil**

Answer: D

Clay is made of the smallest soil particles, under 0.002 mm, and they pack together very tightly.

That leaves tiny pore spaces, so clay soil has low porosity, drains slowly and holds water for a long time.

Sandy soil is the opposite case: its grains are large, the pores are wide and water passes through quickly.

Textbook: Geography Grade 9, Unit 3 Natural Resource Base of Ethiopia, section 3.4 (page 70).

29. why is the koppen system of climate classification more widely used than the Ancient Greeks' classification?

(1)

- A. The koppen system considers the distribution of water bodies.
- B. It is based on temperature and sunshine distribution.
- C. ✓ **It considers the averages of temperature and precipitation.**
- D. its climatic region is within latitudinal boundaries.

Answer: C

Köppen built his system on measured data: mean monthly and annual values of temperature and precipitation, checked against the vegetation that grows there.

That makes the boundaries testable anywhere in the world, which is why the system is still in use.

The ancient Greek scheme is the contrast: it cut the earth into torrid, temperate and frigid zones by latitude alone, so it could not show a cool highland inside the tropics.

Textbook: Geography Grade 11, Unit 2 Climate Classification and Climate Regions of Our World, section 2.2 (page 30).

30. How dose continental drift cause climate change?

(1)

- A. ✓ By changing the aspect and position of the landmass**
- B. By emitting large volume of gases and dust particles
- C. By transferring high amount of heat across the globe
- D. By altering composition of carbon dioxide

Answer: A

Continental drift slowly carries landmasses into new latitudes and changes how oceans, mountain barriers and coastlines are arranged.

A block that once sat near the equator can end up in a polar position, and ocean currents that carried heat are cut off or redirected, so the climate of that land changes over millions of years.

Volcanic gases and dust also change climate, but that is volcanic activity, not the drift of the plates themselves.

Textbook: Geography Grade 12, Unit 2 Climate Change, section 2.3 (page 39).

— END OF MARKING KEY —