GEOGRAPHY 6890/01

PAPER 1: Geographical Themes

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Confidential

MARK SCHEME

{6890/01}

MARKS: 75

This document consists of 14 printed pages

- **1. (a).** Study Fig.1, which shows a long profile and cross profiles of the upper, middle and lower course of a river valley.
 - (i) |Define a river mouth.

- It's a point at which a river enters the sea or lake

1x1 = [1]

- (ii) With the aid of Fig.1, describe how the long profile of a river changes downstream.
 - steep slope in upper course
 - the gradient decreases
 - gentle slope in lower course

2X1 = [2]

(iii) State **three** differences between the cross profile in the upper and lower course.

Upper Lower

- V-shaped valley - open V-shaped valley

- narrow valley - wide valley.

river occupies whole valley
rocks/boulders on river bed
no flood plain
river occupies part
alluvial sediments
flood plain present

- levees absent - levees present

3x1=[3]

- (iv). Describe how an ox bow lake is formed by a river in its lower course.
 - formed from a pronounced meander
 - erosion in the outer bank
 - deposition on the inner bank
 - narrow neck formed
 - With time the erosion will cut through the narrow neck
 - Resulting to the formation of an ox- bow lake

4x1 = [4]

- **(b). Study** Photograph A (Insert), which shows a waterfall.
 - (i). Describe four physical features shown in Photograph A (Insert).
 - High volume of water
 - water falling forming a plunge pool
 - boulders / rocks / jointed cracks
 - vegetation / trees
 - cliff
 - white water

4x1=[4]

- (ii). Explain **two** advantages to the people of a waterfall such as the one shown in Photograph A (Insert)
 - tourist attraction which brings revenue to the local people
 - domestic use , local people may visit the waterfall for swimming/fishing
 - the waterfall maybe used for hydro-power generation which increases energy in the country

2x2=[4]

- **(c)** Flooding continues to affect lives of many people in the world. Using a named Example of a flood you have studied, explain **three** ways by which flooding effects can be reduced.
 - planting vegetation vegetation acts like a sponge by intercepting rainwater and releasing it slowly thus reducing floods.
 - reservoirs- they can be used to trap water from tributaries then to be released slowly over time.
 - straightening the channel- this works by shortening the channel so that gets away faster.
 - dredging the channel- making the channel deeper increases its capacity thus makes it less likely to overflow.
 - wet lands- the conservation of wetlands reduces runoff hence reduces soil erosion.

Any three well explained with examples from countries or specific areas

- **2. (a)** Study Fig. 2, which shows the world distribution of **volcanoes** and direction of tectonic plate movements.
 - (i). Define a tectonic plate.
 - it is the rigid upper part of the earth's crust.

1x1 = [1]

- (ii). List two characteristics of an oceanic plate.
 - Thin
 - Dense
 - Mainly covered by the ocean
 - Made up of silicon and magnesium.

2x1 = [2]

- (iii). Describe the distribution of the volcanoes shown in Fig.2.
 - west of South America
 - west of North America
 - south of Eurasia
 - eastern side of Eurasia /circum pacific belt
 - east/central Africa, east of Madagascar
 - mid Atlantic ocean

3x1 = [3]

- (iv). Describe the formation of a volcano.
 - magma swells up in mantle/pressure build up
 - faults or cracks develop
 - magma forces its way up the crack to the surface
 - lava is ejected through the vent
 - accumulates on the surface
 - builds up a cone like feature.

[4]

- **(b)** Study Fig. 3, which shows an area affected by an **earthquake**.
 - (i) Using Fig. 3, list **four** likely effects of the earthquake in this area.
 - destruction of dam
 - destruction of port by tsunami
 - destruction of buildings/infrastructure in city
 - breakout of fires in city
 - destruction of buildings in the village
 - destruction of village by dam

4x1=[4]

- (ii) Explain two reasons why the effects of earthquakes vary.
 - time of the day more people may be killed when the earthquake strikes at night
 - distance away from the epicentre areas close to the epicentre often suffer the most damage
 - the intensity/ magnitude of the earthquake high intensity earthquakes often cause more destruction

- the density of population in the area hit by earthquake high density population areas experience more deaths
- nature of the buildings some countries are able to construct earthquake resistant buildings which reduces the impact of the earthquake.
- level of economic development most MEDCs are able to provide emergency and rescue services

2x2 = [4]

- (c). Volcanic eruptions usually affect lives and the environment. Using an example from country you have studied, explain **three** environmental effects of a **volcanic** eruption.
 - environmental pollution; from the gases emitted during the eruption such as sulphur dioxide.
 - smoke/ ash may block the sun rays leading to a reduction in temperatures
 - destruction of plants and animals/ loss of flora and fauna as these are covered by ash / lava / petrified.
 - loss of scenic beauty; as lava flow may fill up an area / ash.
 - loss of agricultural / farm land as these are covered by ash / lava

Any **three** well explained points with an example from a country.

THEME 3: ECONOMIC DEVELOPMENT AND UTILISATION OF RESOURCES

(Answer **one** question)

- **3 (a)**. Study Photograph B (Insert), which shows an area where subsistence farming is practised in Eswatini.
 - (i). Define subsistence farming.
 - growing of crops and rearing of livestock for home consumption

1x1 = [1]

- (ii). List **two** problems that the farmer would face when clearing land for a farm such as the one shown in Photograph B (Insert)
 - Lack of machinery
 - Lack of labour
 - Lack of capital
 - Steep slopes

2x1 = [2]

- (iii). Describe **three** features of a subsistence farming system such as the one shown in Photograph B (Insert).
 - Use draught animals
 - Ploughs on a small scale
 - Use family labour
 - Often situated on a steep area

3x1=[3]

- (iv). Describe four features shown in Photograph B (Insert) which show that the farmers are aware of the problem of soil erosion.
 - farmer practices contour ploughing to reduce soil erosion.
 - farmer has kept trees
 - farmer has strip grasses
 - terraces

4x1 = [4]

(b). (i). Describe how each of the following factors has led to food shortages in some countries;

-	lack of rainfall - crops wilt and dry up reducing yields	1x1 =[1]
-	low capital investment; farmers fail to buy necessary inputs.	1x1 = [1]
-	weeds; destroy planted crops leading to low yields	1x1 = [1]
-	pests; destroy crops, reduces yields	1x1 = [1]

- (ii). Explain **two** efforts by which many countries are trying to solve the problem of food shortages.
- use technology in farming more efficient and saves time
- invest a lot of capital so they can be able to buy inputs
- use better treated seeds which results in a higher yield
- high usage of fertilisers which results in a higher yield
- employ labour
- Introduce GM crops which are resistant to drought and diseases so increases yields
- practise irrigation which ensures continuous planting of crops even during dry season
- use pesticides and insecticides destroy pests and insects which destroy crops

2x2=[4]

- **(c).** Large commercial farms are found in many countries. Using an example from a country you have studied, explain **three** negative impacts of commercial farms to the environment.
 - pollution; through the pesticides and herbicides used.
 - water contamination ; poison from fields contaminates underground and surface
 - water leading to death of water life / eutrophication
 - soil compaction due to the extensive use of heavy machinery
 - soil erosion large area need to be cleared of vegetation
 - deforestation large areas of land are cleared of vegetation resulting to loss of habitats

any **three** well explained statements with an example from a country.

- **4 (a)** Study Photograph C (Insert), which shows a craft industry in an LEDC.
 - (i) Define a craft industry.

An industry which produces products mainly by hand on a small scale.

1x1 = [1]

- (ii) List any **two** inputs of the craft industry.
 - Family labour mainly women
 - little capital input
 - natural raw material (wood)
 - dyed material [2]

- (iii) Describe three features of the craft industry shown in Photograph C (Insert).
 - Hand made products
 - Small scale
 - Variety of products
 - Products displayed for customers

3x1 = [3]

- (iv) State four advantages of the craft industry to a country.
 - Provision of jobs/creates employment opportunities
 - Empowerment of women
 - Contributes to revenue of the country
 - Earns foreign exchange when products are exported
 - Markets the country internationally
 - Goods produced may be used by locals
 - Improves the standard of living of the people as they earn an income

4x1 = [4]

- **(b)** Study Photograph D (Insert), which shows Matsapha industrial estate.
 - (i) List **four** features of the industrial estate such as the one shown in Photograph D (Insert).
 - Large buildings/ warehouses
 - Mostly single storey buildings
 - Power lines
 - Buildings mainly made of corrugated sheets
 - Multi-coloured buildings
 - Roads and a railway line

4x1 = [4]

- (ii) Explain **two** factors that influenced the location of the industrial estate.
- Availability of water from the Little Usuthu river which is used for processing and washing machinery
- Near the Mbabane- Manzini freeway which makes it easy to transport raw material and products to the market
- Availability of a large area of reserve land for future expansion of the estate
- The market is nearby as the two main cities are less than 20 km away, this reduces the costs of transportation to the market

2x2 = [4]

- (c) Industrial concentrations create agglomerations. Using a named example of a country you have studied, explain **three** disadvantages of industrial agglomerations.
 - -pollution , the presence of many industries in an area increases the amount of waste released /pollutants
 - congestion, traffic congestion may result due to the increased volume of traffic.
 - Competition for resources such as water supply and energy may lead to shortages which may affect production
 - competition for skilled labour as the people employed may have the same skills.

Any **three** explained statements and an example of a country.

[Total: 25 marks]

- **5. (a)** Study Photograph E (Insert), which shows a settlement.
 - (i) Name the form of settlement shown in Photograph E (Insert).
 - squatter settlement/shanty town

1x1 = [1]

- (ii) Identify **two** features of the settlement shown in Photograph E (Insert)
 - Poor drainage /open running water
 - Congested buildings
 - Mainly built from scrap/corrugated iron sheets
 - Small houses
 - Litter on the ground
 - Poorly / unplanned houses

2x1 = [2]

- (iii) State **three** reasons why settlements such as the one shown in **Photograph E** (Insert) develop in the outskirts of a town.
 - Cheaper land
 - Unused land
 - Lack of housing
 - Lack of income / Income to rent/lack of employment
 - Marginal land.

3x1 = [3]

- (iv) Describe four problems faced by people who live in settlements such as the one shown in Photograph E (Insert)
 - Diseases caused by overcrowding and poor sanitary conditions
 - overcrowding will lead to spread of disease / shortage of resources such as water
 - high crime rate due to lack of employment
 - fire outbreak due to lack of electricity / to use of candles etc.
 - shortage of resources like water and food which leads to the use of contaminated water supplies hence diseases

2x2 = [4]

- **(b) Study Fig. 4,** which shows a sketch map of a town and its proposed by-pass road.
 - (i) Using Fig.4 describe four impacts of the construction of the by-pass road to the people and the environment.
 - cutting down of tress where roads are constructed
 - pollution from smoke produced by traffic
 - noise pollution
 - soil erosion
 - drainage of the wetland/marsh
 - reduced land for farming
 - resettlement of homesteads

3x1 = [3]

- (ii) Explain two other ways by which traffic congestion can be reduced in towns.
 - traffic lights
 - parking meters/ garages
 - number plate access
 - encourage use of public transport
 - highways
 - pedestrianisation

2x2 = [4]

- **(c).** For a country you have studied, explain **three** physical factors which influence the siting of rural settlements.
 - availability of fertile soil; as agriculture is practiced in most rural areas, so soils have to be fertile.
 - undulating land to allow people to practice agriculture and construct their houses / homes
 - conducive climate
 - building material
 - availability of water

Any **three** fully explained with an example of a country

6 (a) Study Fig.5, which shows the effects of educating women on birth rates in LEDC's.

If a mother has received education, at least basic education of first five years in formal school system, her children are 60 % more likely to live beyond age of 5 years.

For every 2 % increase in the number of women with secondary education, the country's income growth per head rises.

Educated girls marry later and have fewer children, leading to better health care. They are also more likely to send their children to school.

Fig.5

(i) Define birth rate

The number of children born per year per thousand

1x1 = [1]

- (ii) Using information from Fig.5, state **two** benefits of educating women to children.
 - children are likely to live beyond the age of 5 years / healthier
 - children are likely to go to school
 - birth rates are likely to be reduced.

2x1 = [1]

- (iii) Suggest **three** reasons why women in most LEDCs have not been able to acquire education.
 - Early marriage/teenage pregnancy
 - Poverty
 - Traditional beliefs/low status of women
 - Gender insensitivity

3x1 = [3]

- (iv) List four reasons why birth rates are still high in most LEDCs.
 - Polygamy
 - Lack of education especially women
 - Traditional beliefs in large families
 - Lack of contraceptives
 - Lack of a population policy
 - Low status of women

2x2 = [4]

- (b) Study Fig. 6 which shows the population pyramids of two countries **A** (an MEDC) and **B** (an LEDC).
 - (i) Using Fig. 6 compare the population pyramids for the two countries A (an MEDC) and B (an LEDC).

A B

Low population of young aged
Bulges towards the top
Live up to + 90 years
high population
tapers towards the top
live to + 80

Live up to + 90 years live to + 8

Low dependency ration
Many above 65 years old
high dependency ration
few above 65 years

4x1 =[4]

- (ii) Explain **two** problems experienced by countries with high percentage of ageing population.
 - lack of able bodied labour
 - problems in the army/ security of the country
 - high taxes for employed people
 - shortage of markets
 - some amenities like colleges become underused
 - industries have to increase wages to attract foreign labour 5x1 =[5]
- (c) HIV/AIDS has resulted in both economic and social impacts in Eswatini. For an area you have studied explain **three** social impacts of HIV/AIDS.
 - high rise of orphans- who become a burden to governments.
 - high death rates of adults; causes lack of labour
 - high crime rates as the youth has no one to look after them
 - child headed households, which may result in juvenile delinquency

Any three well explained with an example from Eswatini. [7]