3.9 GEOGRAPHY (312)

3.9.1 Geography Paper 1 (312/1)

SECTION A

*Answer ALL the questions in this section.*

1. Name two types of hypabyssal rocks. \( (2 \text{ marks}) \)

2. (a) The diagram below shows intrusive volcanic features.

![Diagram of intrusive volcanic features](image)

   (b) Name the features marked E, F and G. \( (3 \text{ marks}) \)

3. (a) Give three processes in the hydrological cycle. \( (3 \text{ marks}) \)

   (b) State four factors that facilitate deposition in rivers. \( (4 \text{ marks}) \)

4. (a) Explain two reasons why wind is the dominant agent of erosion in arid areas. \( (4 \text{ marks}) \)

   (b) Identify two features formed as a result of wind deposition in arid areas. \( (2 \text{ marks}) \)

5. (a) Describe podzolization as a process of leaching. \( (2 \text{ marks}) \)

   (b) State three ways in which mulching helps in soil conservation. \( (3 \text{ marks}) \)
SECTION B

Answer question 6 and any other TWO questions from this section.

6 Study the map of Migwani 1:50,000 (sheet 151/1) provided and answer the following questions.

(a) (i) Give the longitudinal extent of the area covered by the map. (2 marks)

(ii) What is the magnetic variation of the map? (1 mark)

(iii) Give the six-figure grid reference for the junction of the roads D503 and D507. (2 marks)

(b) (i) Using a vertical scale of 1 cm to represent 100 metres, draw a cross section along the line marked J-K. (4 marks)

(ii) On it, mark and label the following:

- footpath; (1 mark)
- road; (1 mark)
- water pipeline; (1 mark)
- steep slope. (1 mark)

(iii) Calculate the vertical exaggeration of the cross-section. (2 marks)

(c) Citing evidence from the map, give three economic activities carried out in the area covered by the map. (6 marks)

(d) Explain how relief has influenced the distribution of settlement in the area covered by the map. (4 marks)

7 (a) (i) Describe the solar system. (2 marks)

(ii) The local time at Manaul 60°W is 11.30 a.m. What is the time in Nairobi 37°E? (3 marks)

(b) (i) State five characteristics of the mantle in the interior structure of the earth. (5 marks)

(ii) Outline the evidence which support the theory of continental drift. (4 marks)
(c) The diagram below represents the revolution of the earth.

![Diagram of Earth's revolution with solstices and equinoxes]

**KEY:**
- Orbit
- Season

(i) Name the solstice marked P.  
(1 mark)

(ii) Identify the season represented in the region marked Q.  
(1 mark)

(iii) Describe the climatic conditions in Europe when the Earth is in position R.  
(3 marks)

(d) With the aid of a well labelled diagram, describe the occurrence of the solar eclipse.  
(6 marks)
The map below shows some climatic regions of Kenya. Use it to answer question (a).

(a) (i) Name the climatic regions marked X and Y. (2 marks)
(ii) State three characteristics of the climatic region marked Z. (3 marks)

(b) Explain how each of the following factors influence climate:
(i) Altitude; (4 marks)
(ii) Ocean currents. (4 marks)

(c) What are the negative effects of climate change on physical environment? (6 marks)

(d) Students visited a weather station to study recording of weather elements.
(i) State three qualities in the construction of a Stevenson screen they would have observed during the study. (3 marks)
(ii) Identify three types of data they are likely to have collected during the study. (3 marks)
9  (a)  (i) Name two types of submerged highland coasts.  
(ii) Identify two resultant features of the emerged highland coasts.  
(b) State three factors influencing deposition by ocean waves.  
(c) With the aid of labelled diagrams describe the formation of the following coastal features:
   (i) Fringing reef;  
   (ii) Spit.  
(d) Explain the significance of oceans to human activities.  

10 (a)  (i) Name two mountains in East Africa which are ice capped.  
(ii) Identify three ways in which ice moves.  
(b) Describe the formation of the following glacial features:
   (i) Hanging valley;  
   (ii) Pyramidal peak.  
(c) You are required to carry out a field study on erosional features in glaciated lowland area.
   (i) Give two reasons why you would require a working schedule.  
   (ii) Name three erosional features you are likely to observe during the field study.  
   (iii) Give three follow-up activities you would undertake after the field study.
3.9.2 Geography Paper 2 (312/2)

SECTION A: (25 marks)

Answer all the questions in this section.

1  (a) Give two uses of diamond.  (2 marks)
    (b) Identify three problems facing diamond mining in South Africa.  (3 marks)

2  (a) Apart from coniferous forests, name two other types of natural forests.  (2 marks)
    (b) State three characteristics of coniferous forests which favour their exploitation.  (3 marks)

3  Use the map of East Africa below to answer question (a).
(a) Name the game reserves marked P, Q and R. (3 marks)

(b) State two factors which influence the distribution of wildlife in East Africa. (2 marks)

4 (a) Give two reasons why Geothermal power has not been fully exploited in Kenya. (2 marks)

(b) State three causes of the energy crisis in the world. (3 marks)

5 (a) Identify the two types of internal trade. (2 marks)

(b) Give three factors that limit trade among the member states of the common market for Eastern and Southern Africa (COMESA). (3 marks)

SECTION B: (75 marks)

Answer question 6 and any other two questions in this section.

6 Study the photograph below and use it to answer question (a)

(a) (i) Identify the type of photograph shown above. (1 mark)

(ii) Name the type of settlement shown on the photograph. (1 mark)

(iii) What time of the day was the photograph taken? (1 mark)

(iv) Draw a rectangle measuring 15 cm by 10 cm. On it, sketch and label five human features shown on the photograph.
(b) Explain four economic factors that influence settlement. (8 marks)

(c) Describe four negative effects of urbanization. (8 marks)

7 (a) Explain three social factors that influence agriculture. (6 marks)

(b) (i) Describe the cultivation of oil palm from land preparation to harvesting. (7 marks)

(ii) Give three uses of palm oil in Nigeria. (3 marks)

(c) Explain three reasons why horticultural farming is encouraged in Kenya. (6 marks)

(d) Give three factors which favours beef farming in the Nyika plateau. (3 marks)

8 (a) Explain four ways in which land is being rehabilitated in Kenya. (8 marks)

(b) (i) State two ways in which the salinity of the polders is reduced in The Netherlands. (2 marks)

(ii) Explain four ways in which the Zuyder Zee project benefits The Netherlands. (8 marks)

(c) You intend to carry out a field study on irrigation farming in Mwea Tebere Irrigation Scheme:

(i) Identify the two types of hypotheses you would develop for the study. (2 marks)

(ii) Name three crops, grown in the scheme that you are likely to identify. (3 marks)

(iii) Give two reasons why you need to sample the area of study. (2 marks)

9 (a) Define the term fishing. (2 marks)

(b) Explain two ways in which each of the following factors negatively affects fishing in Kenya.

(i) Agricultural activities. (4 marks)

(ii) Water weeds. (4 marks)
(c) Use the map of North-West Atlantic fishing ground to answer questions (c)(ii) and (iii).

(i) Give three types of fish species caught in the North-West Atlantic fishing ground. (3 marks)

(ii) Name the Ocean currents marked M and N. (2 marks)

(iii) Explain two ways in which the convergence of Ocean currents marked M and N influence fishing. (4 marks)

(d) Give three differences between fishing in Kenya and Japan. (6 marks)

10 (a) What is environmental management? (2 marks)

(b) (i) Explain four negative effects of floods. (8 marks)

(ii) State two measures being taken to control lightning. (2 marks)

(c) Explain the significance of conserving the environment. (8 marks)

(d) Your Geography class carried out a field work on floods along a river.

(i) Name two types of field work they could have used. (2 marks)

(ii) Give three advantages of studying floods through field work. (3 marks)