MARANDA HIGH SCHOOL

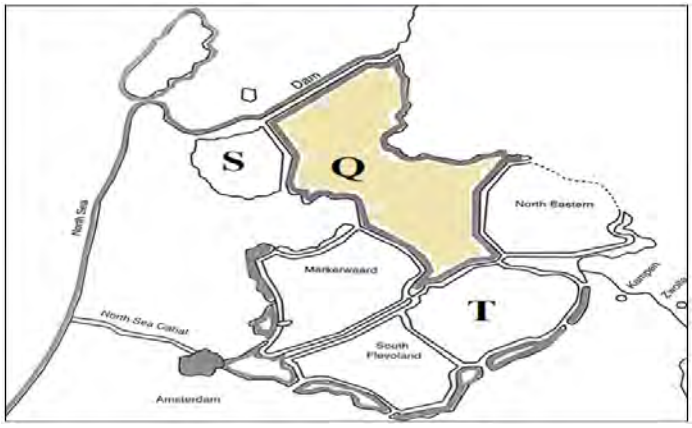
Kenya Certificate of Secondary Education

MOCK EXAMINATIONS

312/2 GEOGRAPHY Paper 2

Dec. 2021

MARKING SCHEME

NO.	QUESTION & ANSWERS	REMARKS
1.	**(a) Name *two* major car manufacturing zones in Japan.** ✓ *Tokyo – Yokohama Industrial zone* ✓ *Kyoto – Osaka – Kobe industrial zone* ✓ *Nagoya industrial zone*	***2×1mk=2mks***
	(b) State *three* reasons for the declined use of coal as source of energy in the Ruhr region in Germany. ✓ *Increased use of other sources of energy such as HEP, oil and natural gas* ✓ *Rising costs of coal extraction as mines have become very deep* ✓ *Other sources of energy are easy to transport than coal which is bulky* ✓ *To reduce environmental degradation caused by mining of coal* ✓ *Coal has low calorific value compared to other sources of fuel such as oil* ✓ *Steel is increasingly being made from scrap metal*	***3×1mk=3mks***
	Total	***5 marks***
2.	**(a) Below is the map of Zuider Zee Project in Netherlands, use it to answer the question (i) and (ii) that follow.**  	
	(i) Name the polders marked S and T. **S:** *Wieringermeer (polder)*	***1×1mk=1mk*** ***1×1mk=1mk***
	T: *Eastern Flevoland (polder)*	

	(ii) Identify the lake marked Q. *Lake IjsselYessel* **(b) Give the reasons behind the following practices carried out during the reclamation of land from the sea in the Netherlands.** **(i) Sowing of reeds.** ✓ *To prevent weeds from growing* ✓ *To dry the soil (by using up excess water)* **(ii) Treating soils with chemicals.** ✓ *To lower soil salinity*	***1×1mk=1mk*** ***1×1mk=1mk*** ***1×1mk=1mk***
	Total	***5 marks***
3.	**State *five* reasons why many rivers in Africa are underdeveloped as mode of transport.** ✓ *Vegetation growth on rivers e.g. water hyacinth or swamps may interfere with navigation/disrupt the movement of ships/boats* ✓ *Most rivers may have rapids/waterfalls along their courses that may disrupt transport thus the need for constructing canals to bypass them; increasing the cost* ✓ *Siltation along the lower river courses/in dams reduce the water volume hence need for dredging; expensive* ✓ *Rugged nature of the African landscape with steep slopes/ high river velocity* ✓ *Presence of rock obstacles/ outcrops that hinder the movement of vessels.* ✓ *Most rivers suffer seasonal fluctuation of the water regime as they pass through regions of low rainfall.* ✓ *Inadequate economic resources in most areas served by the rivers.*	***5×1mk=5mks***
	Total	***5 marks***
4.	**(a) Name *three* legislations made by the government of Kenya governing environmental management and conservation.** ✓ *The Kenya Wildlife Management and Conservation Act* ✓ *The Antiquities and Monuments Act* ✓ *The Grass Fires Act* ✓ *The Plant Protection Act* ✓ *The Water Act* ✓ *The Forest Act* ✓ *The Public Health Act* ✓ *The Factories Act* ✓ *The Radiation Protection Act* ✓ *The Local Authority by-laws* ***(b)* Give *two* major causes of noise pollution.** ✓ *High pitch/ booming music in nightclubs, shops, motor vehicles, public gatherings, places of worship* ✓ *Motor vehicles/ trains hooting repeatedly or engines revving continuously* ✓ *Large aeroplanes or military aircrafts when flying over a place* ✓ *Machines which produce loud noise in factories*	***3×1mk=3mks*** ***2×1mk=2mk***
	Total	***5 marks***
5.	**(a) Define the term Agroforestry.** *Planting of trees in alongside growing of crops and rearing of livestock in the same piece of*	***1×2mk=2mks***

(b) Name three areas where softwood forests are found in Kenya.

- ✓ *Turbo*
- ✓ *Kipkabus*
- ✓ *Timboroa*
- ✓ *Kaptagat*
- ✓ *Elburgon*
- ✓ *Londiani*
- ✓ *Lugari*

3×1mk=3mks

	Total	***5 marks***

6. **The photograph below shows an agricultural practice carried out both in Kenya and Netherlands. Use it to answer the questions that follow.**

(a) Name *three* areas in Netherlands where the activity in the photograph is practiced in large scale.

- ✓ *Lieden-Haarlem*
- ✓ *Hague*
- ✓ *Rotterdam*
- ✓ *Hook of Holand*
- ✓ *South Holland Islands*
- ✓ *Guelderland*
- ✓ *Limburg*
- ✓ *Utrecht*

3×1mk=3mks

(b) Give *four* reasons why growing of flowers in the structures shown in the background is preferred in Kenya.

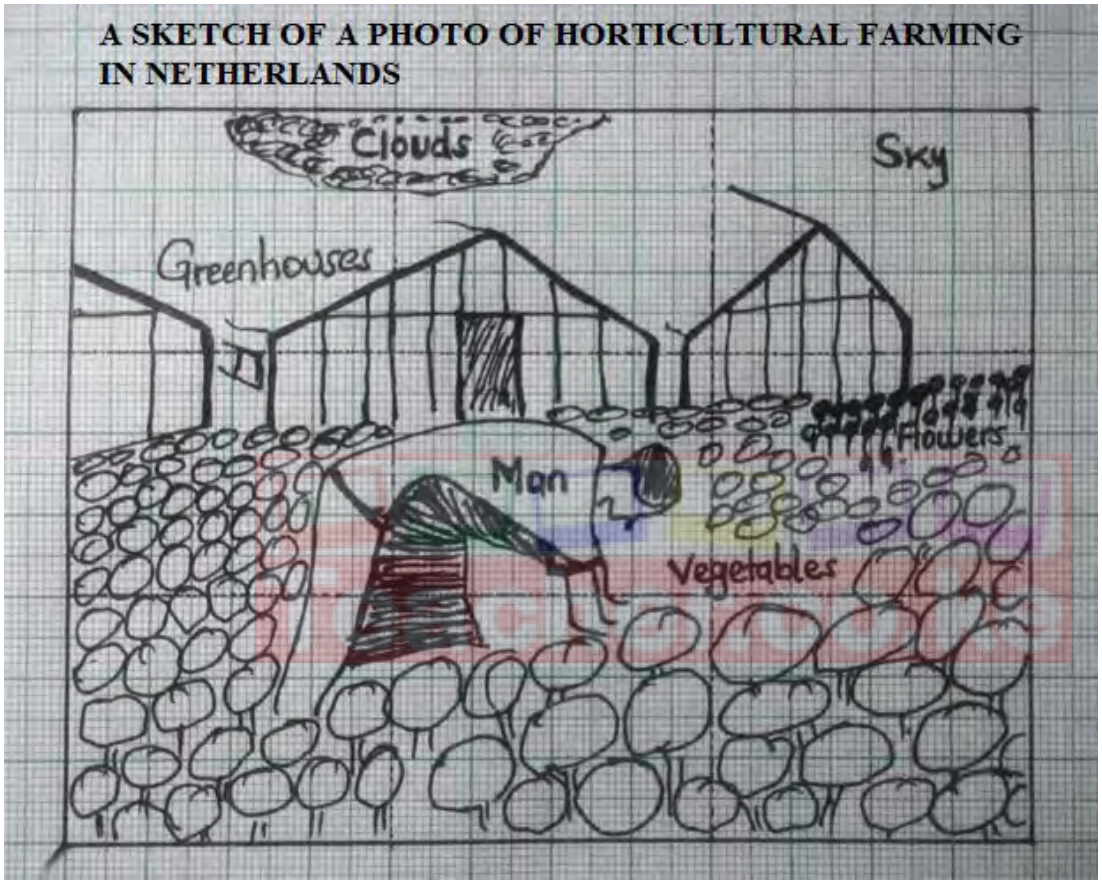
- ✓ *It is easier to control the amount of moisture that flowers require.*
- ✓ *The plants are protected from excessive rainfall, hailstones and drought thus ensuring maximum yields.*
- ✓ *Spread of pests and diseases is controlled as chemicals (pesticides) are used more*

Plants are protected from the damaging effects of strong winds and airborne diseases.

- ✓ *Semi artificial climate is created within the greenhouse which is uniform for all plants in there*
- ✓ *Crops are grown all year round since external climatic conditions do not affect their growth.*
- ✓ *It is easy to control weeds through application of herbicides*

4×1mk=4mks

(c) Draw a rectangle measuring 12 cm by 9 cm and in it represent the main components of the photograph shown above.



Title 1mk

Size 1mk

3 components 3mks

(d) Explain the roles played by horticulture to the economy of Kenya.

- ✓ *Promoting industrialization - It is a major source of raw material for local horticultural industries e.g. fruit canning, manufacture of vegetable oils thus stimulating industrialization and other related industries such as freight services, pesticides and banking services.*
- ✓ *Foreign exchange earner - Export of flowers, fruits and vegetables earns foreign exchange used in developing other sectors of the economy.*
- ✓ *Creation of employment opportunities - source of income to farmers hence raising their living standards.*
- ✓ *It has stimulated expansion and development of transport infrastructure - through construction of roads and airports to facilitate the delivery of horticulture products to various markets.*
- ✓ *It has ensured effective/maximum use of land and even reclamation of swampy areas – hence increased food production improving peoples living standards/ health.*

4×2mk=8mks

	(e) State five problems facing the practice shown in the above photograph in Kenya. ✓ *Pests e.g. aphids, nematodes, birds, worms, rodents lower crop yields.* ✓ *Diseases e.g. blight, black rot, bacterial wilt. lower crop yields* ✓ *Inefficient marketing system that lacks proper organization lead to rotting of produce.* ✓ *Stiff competition on the international market by other horticultural producers (Israel, Netherlands).* ✓ *Price fluctuations due to overproduction results to marginal profits.* ✓ *Climatic hazards (frost, hailstones, prolonged drought) that destroy the produce in the farms.* ✓ *High freight charges and production costs that lead to marginal profits (due to hiked costs of farm inputs and airfares).* ✓ *Seasonal floods that make the feeder roads impassable during the rainy season limits accessibility between the farms and collecting centres/leads to delay in delivery of the products.* ✓ *Inadequate refrigeration facilities may lead to reduction in quality of highly perishable produce.*	***5×1mk=5mks***
	Total	***25 marks***
7.	**(a) Define the term mining.** ✓ *Mining is the extraction of valuable minerals both solid and liquid from the earth's crust.*	***1×2mk=2mks***
	(b) Give *three* minerals that occur in veins. ✓ *Copper* ✓ *Tin* ✓ *Lead* ✓ *Zinc* ✓ *Silver* ✓ *Gold*	***3×1mk=3mks***
	(c) (i) Name *two* main areas where gold mining takes place in South Africa. ✓ *Witwatersrand (the Rand)* ✓ *Ogendaalrus* ✓ *Lydenburg* ✓ *Welkom* ✓ *Krugersdorp* ✓ *Klerksdorp* ✓ *Orange Free State*	***2×1mk=2mks***
	(ii) Describe the procedure of processing of gold. ✓ *The ore is crushed and ground in ball mills into fine powder.* ✓ *The powder is mixed with water to produce slime/pulp* ✓ *The slime is mixed with potassium cyanide solution to dissolve gold particles (and not uranium) forming potassium-gold cyanide solution.* ✓ *The gold solution is then mixed with zinc dust causing the gold to precipitate out.* ✓ *Gold is heated and melted down into gold bars, ready for export.*	***5×1mk=5mks***
	(d) Explain how the following factors hinder mining of some minerals in Kenya. **(i) Political influence.** ✓ *Political wrangles/ dispute affect mining of minerals occurring within boarders, this may lead non-exploitation of such minerals e.g. oil at Kenya – Somalia boarder* ✓ *A government may suction or delay exploration of minerals because of various considerations.*	***2×1mk=2mks***
	(ii) Transport costs.	

likely to be exploited because of high cost of establishing transport lines to industrial centres.

(c) (i) State three uses of soda ash.

- ✓ *Used as a raw material in the manufacture of glasses and bottles.*
- ✓ *Used in the manufacture of soaps and detergents,*
- ✓ *It is used in the paper-making industry.*
- ✓ *It is used as dyes for textiles.*
- ✓ *Used for softening water and in water treatment works.*

3×1mk=3mks

(ii) Explain three ways in mining of trona has promoted economic growth in Kenya.

- ✓ *Lead to promotion of urbanization – e.g. Magadi town, and of social amenities such as hospitals and schools that have benefited the local people improving peoples' living standards.*
- ✓ *Stimulated the development of infrustracture e.g road and rail transport e.g. the Konza – Magadi Railway, Nairobi-Magadi road, electricity and water supply. These have opened up the remote areas for further development.*
- ✓ *Provision of employment opportunities – to many Kenyans as miner, mineral transportation, processing or sale, earning them income thus raising the living standards*
- ✓ *Promotion of industrial growth - by providing raw materials in the following industries: oil refining, paper making, glass making. Industries offer employment opportunities and create goods for exportation.*
- ✓ *Earns foreign exchange - through exports of soda ash the country used in the development of other sectors of the economy.*
- ✓ *Saving of foreign exchange/import expenses by being available locally. The savings are then used to finance other developments.*
- ✓ *Earning the government revenues through taxations and tarrifs – the money are used locally for the development of the country.*

3×2mk=6mks

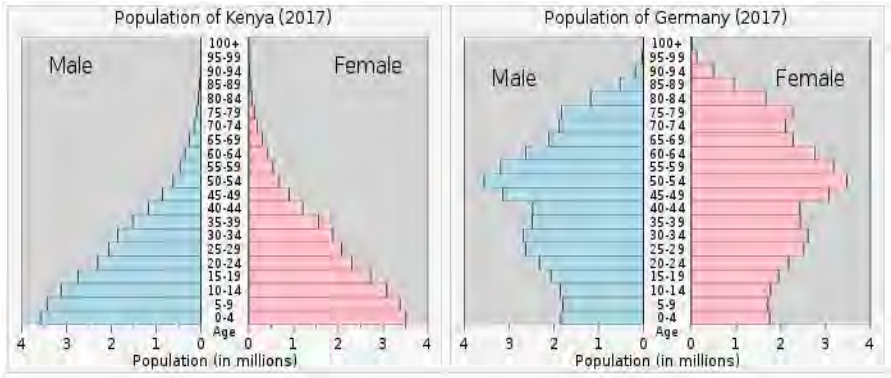
	Total	***25 arks***

8. **(a) What is meant by population growth?**

This refers to the change that occurs in the number of people in a population over a given period.

1×2mk=2mks

(b) Study the age-sex pyramids below and answer the questions that follow.



(i) What terms are used to describe the populations of Kenya and Germany based on the shapes of the pyramids?

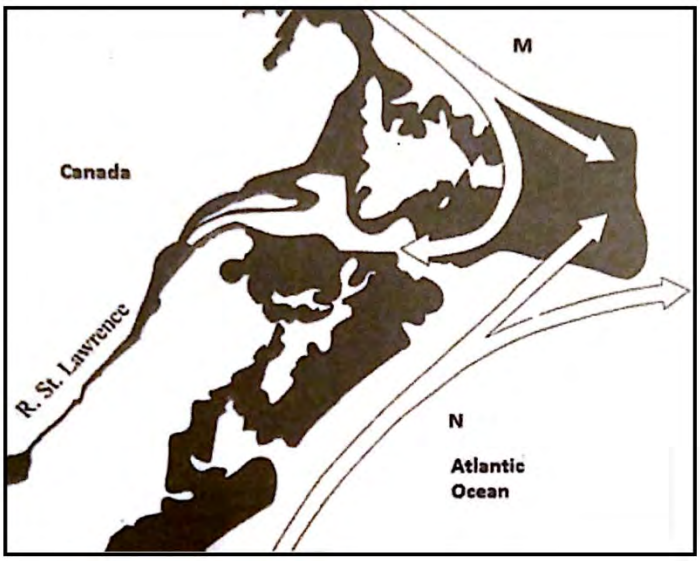
- ✓ **Kenyan population:** *A young population* ***1×1mk=1mk***
- ✓ **German population:** *Ageing population* ***1×1mk=1mk***

(ii) Describe the population structure of Germany based on the age-sex pyramid.

- ✓ *Low birth rate/ fertility due to a narrow base*
- ✓ *Low mortality rate due to a broader top*

	✓ *Low dependency ratio due to a narrow base compared to a broader chest/ middle*	
	✓ *The ratio males to females are almost equal/ small sex ratio due to almost same length of bars at all age groups.*	***5×1mk=5mks***
	(iii) Give the reasons for the large numbers witnessed in the Kenyan population in the first three age Cohorts. ✓ *Inadequate education about family planning* ✓ *Improved nutrition* ✓ *Improved health services* ✓ *Inavailability or high cost of contraceptives* ✓ *Polygamy amongst some ethnic groups* ✓ *Weakening of traditional customs like prolonged breastfeeding and sexual abstinence after birth.* ✓ *High mortality/death rates.*	***4×1mk=4mks***
	(iv) State the effects of the population structure shown by the age-sex pyramid in Germany. ✓ *Increased dependency ratio.* ✓ *Increased cost of health care for the aged who are prone to ill health.* ✓ *Shortages of human power/ labour in some professions* ✓ *Underutilization of already set up social facilities for the young people.* ✓ *Provision of pension poses financial problems.* ✓ *High degree of occupational and geographical immobility amongst the aged.* ✓ *Older people many resist social – economic and technological changes.* ✓ *There is a heavy burden on the community i.e. they demand more sick leaves* ✓ *Production will be turned towards goods used by the old.* ✓ *Lack of natural regeneration of population*	***4×1mk=4mks***
	(b) Explain *four* factors that result to a slow population growth. ✓ *High cost of living – Leads to move towards smaller families in order to maintain high living standards* ✓ *Introduction of birth control measures and increase usage of the same – lowers birth rate.* ✓ *Improved health/medical care facilities – thus tendency to give birth to few children as their survival is highly guaranteed.* ✓ *Urbanized population/ expensive urban life thus the need for fewer children to maintain a high living standard*	***4×2mk=2mks***
	Total	***25 arks***
9.	**(a) Differentiate between zooplanktons and phytoplanktons.** ✓ *Zooplanktons are microscopic animal organisms that fish feed on while phytoplantons are microscopic plant organisms that fish feed on.*	***2×1mk=2mks***
	(b) Explain how ocean currents influence fishing. ✓ *Areas washed by warm ocean currents have fewer fish species /population compared to areas washed by cold ocean currents.* ✓ *large shoals of fish are found in areas of convergence of warm and cold ocean currents – waters mix and distributes water temperature* ✓ *large shoals of fish are found in areas of convergence of warm and cold ocean currents bringing to surface some fish nutrients/helps in supplying more oxygen in the water necessary for plankton growth* ✓ *Warm ocean currents in the temperate regions make waters ice free enabling fishing throught the year*	***3×2mk=6mks***

(c) Use the map of North-West Atlantic grounds to answers questions (c) (ii) and (iii).



(i) Name three fish species caught in the North-West Atlantic fishing ground.

- ✓ *Cod*
- ✓ *Herring*
- ✓ *Haddock*
- ✓ *Mackerel*

3×1mk=3mks

(ii) Name the ocean currents marked M and N. ***1×1mk=1mk***

M: *Cold Labrado Current*

N: *Warm Gulf Stream* ***1×1mk=1mk***

(iii) Other than ocean currents explain *three* factors that favour fishing in the area shaded on the map.

- ✓ *Broad and shallow continental shelf leading to flourishing of fish as it provides ideal conditions for plankton growth.*
- ✓ *Dense population especially in the USA provides ready market for the fish.*
- ✓ *Rugged landscape and cold climate in the immediate hinterland discourage agriculture leaving fishing as the alternative economic activity.*
- ✓ *Advanced technology e.g. highly developed ship building and fishing industries equipped with modern preservation and processing facilities that allow fishing to be conducted all year round.*

3×2mk=6mks

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

- ✓ *In Kenya both marine and fresh water fishing is done while in Japan only marine fishing is carried out.*
- ✓ *Marine fishing is confined to Kenyan territorial waters only while in Japan marine fishing extends beyond the territorial waters up to high seas.*
- ✓ *The marine fisheries in Kenya have few/limited fish and species whereas in Japan, the fishing ground is richer with a variety of species.*
- ✓ *In Kenya, marine fishing is done on a small scale based on simple technology and use of traditional methods whereas in Japan fishing is done on a large scale based on advanced technology and use of modern fishing methods.*
- ✓ *In Kenya marketing of fish is mainly done by individuals while in Japan marketing is mainly done through co-operatives societies.*
- ✓ *Kenya has few fisheries due to regular coastline while Japan has many fisheries du to Islands*

3×2mk=6mks

	Total	25 arks
10.	**(a) (i) Identify three sources of renewable energy.** ✓ *Sun* ✓ *Wind* ✓ *Waves and tides* ✓ *Geothermal steam* ✓ *Water* ✓ *Biomass* ✓ *Wood* ✓ *Draught animals*	***3×1mk=3mks***
	(ii) Name any two types of coal. ✓ *Anthracite coal* ✓ *Bituminous/ black coal* ✓ *Lignite/ brown coal* ✓ *Peat*	***2×1mk=2mks***
	(b) (i) Apart from providing electric power, state four other benefits of dams along the River Tana. ✓ *It has led to control of floods in the lower parts of river Tana, thus reducing the incidents of loss of life and farm produce in the area.* ✓ *The dams are tourist attractions earning foreign exchange.* ✓ *Some of the dams in the scheme provide water for irrigation thus improving agricultural production* ✓ *The reservoirs provide fishing grounds which supply fish to the local people.* ✓ *It has led to the improvement of roads making the areas more accessible.* ✓ *It has led to the reduction of importation of power, thus saving the foreign exchange.* ✓ *The dams provide useful sites for educational purposes/field studies*	***4×1mk=4mks***
	(ii) Explain three problems that affect the production of power from the stations along River Tana. ✓ *Changes in the river regime - there are unpredictable fluctuations in the volume of water in the rivers causing the stations to operate below capacity.* ✓ *Silting of reservoirs/dams - This reduces the capacities of the dams leading to low water volumes hence low energy output, requires dredging (expensive)* ✓ *Poor maintenance of machinery at the power houses - This is caused by inadequate funds to purchase essential spare parts.* ✓ *Inadequate skills and technology - Kenya still has inadequate skills against the level of technologies thus power generation is low.*	***3×2mk=6mks***
	(c) State four measures the government of Kenya has taken to conserve energy. ✓ *Search and development of alternative sources of energy other than petroleum e.g. geothermal, wind, solar, gasohol, tidal, hydro-electric power. etc.* ✓ *Increased prospecting for oil* ✓ *Improving public transport to encourage more people to use it (reduce vehicles on the road)* ✓ *Control of the importation of vehicles with high engine capacity (high tax on high capacity luxury cars)* ✓ *Proper planning of the road network to reduce traffic jams* ✓ *Creating awareness by educating the public through mass media* ✓ *Development of energy saving techniques or technology e.g. energy saving jikos* ✓ *Development of wood fuel programmes through afforestation, re-afforestation and planting of fast maturing trees (eucalyptus)*	***4×1mk=4mks***

	(d) (i) What is energy crisis? ✓ *This is a situation whereby the demand for oil is higher than the amount being supplied, leading to high oil prices* **(ii) State for effects of energy crisis.** ✓ *Increased petroleum prices lead to escalation in transport costs/affects tourism* ✓ *Low rate of economic growth because of over-expenditure on oil importation* ✓ *The price of commodities rises leading to inflation* ✓ *High costs of transportation* ✓ *Foreign exchange resources are almost entirely spent on oil imports creating a deficit in balance of trade* ✓ *The demand for charcoal and wood fuel increases leading to deforestation* ✓ *Oil resources are getting depleted*	***1×2mk=2mks*** ***4×1mk=4mks***
	Total	***25 Marks***

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