

SECTION A

1. (a)	<p>State three conditions that are necessary for the formation of petroleum.</p> <ul style="list-style-type: none"> - Deposition of remains of flora and fauna ^{organic matter and fossils} over a long period of time ✓ - Presence of non-porous rocks underneath the deposits of flora and fauna ✓ - Deposition of other layers of rocks over the remains of flora and fauna ✓ - Compression of the remains of flora and fauna due to folding of the layers of the rocks ✓ <p><i>presence of porous rocks</i> <i>presence of sedimentary rocks</i></p>	<p>Any 3 x 1 = 3 marks</p>
1. (b)	<p>Give two by-products of petroleum.</p> <ul style="list-style-type: none"> - Lubricants ✓ <i>crude oil</i> - Tar/Bitumen/Asphalt ✓ - Wax ✓ <i>paraffin wax</i> - Sulphur ✓ - Resin/petro-chemicals ✓ 	<p>Any 2 x 1 = 2 marks</p>
2. (a)	<p>Define Agriculture.</p> <p>Agriculture is the practice of cultivating crops and rearing of animals.</p>	<p>2 marks</p>
2. (b)	<p>Give three social factors which influence agriculture.</p> <ul style="list-style-type: none"> - Land tenure system ✓ <i>land ownership / land inheritance</i> - Religious beliefs/practices ✓ - Cultural beliefs/practices/traditions ✓ - Level of education ✓ - Gender roles ✓ - Interactions between people ✓ <i>heads of families</i> 	<p>Any 3 x 1 = 3 marks</p>

adoption of new techniques in farming (new tools)
new crops

<p>3. (a)</p>	<p>Apart from draining of swamps, give three other methods through which land has been reclaimed in Kenya.</p> <ul style="list-style-type: none"> - Irrigation ✓ - Tsetse fly control ✓ / Pest control - Planting of trees/Afforestation - Flood control ✓ - Controlling soil erosion ✓ - Introducing drought resistant crops ✓ - Fertilizers ✓ 	<p>3 3</p>
<p>(b)</p>	<p>Identify two methods that are used to drain swamps in Kenya</p> <ul style="list-style-type: none"> - Constructing drainage pipes ✓ - Digging open ditches/canals ✓ - Pumping out the water ✓ - Planting trees ✓ / Eucalyptus / Vegetation / Banana 	<p>Any 3 x 1 = 3 marks</p> <p>2 2</p>
<p>4.</p>	<p>State four ways in which bush fires negatively affect wildlife in East Africa.</p> <ul style="list-style-type: none"> - The fires destroy the habitats of animals ✓ - Animals/plants are destroyed/killed/damaged by the bush fire ✓ / injured - Fires lead to reduction of food for animals ✓ / water - The fires pollute the environment/water resources ✓ - Fires lead to migration of wild animals to other places/farmlands ✓ - Fires interrupt the ecosystem ✓ 	<p>Any 2 x 1 = 2 marks</p> <p>4 4</p>
<p>5. (a)</p>	<p>Give three factors that favour the establishment of National Parks in the semi-arid areas of Kenya.</p> <ul style="list-style-type: none"> - Availability of large tracts of sparsely populated land ✓ - Availability of a wide variety of vegetation which provide food for the wild animals ✓ / some are grassland / some are forest - The harsh climatic condition that discourage farming and settlement/makes wildlife conservation the best alternative use ✓ / dryness - The type of vegetation found in such areas provide suitable habitat for wild animals ✓ 	<p>Any 3 x 1 = 3 marks</p>

(b) State ways in which ecotourism has led to sustainable tourism industry in Kenya.

- Conservation of the environment/preservation of scenic beauty
- Respect of rights and active partnership with stakeholders
- Equitable distribution of benefits accrued for tourism
- Respect/safeguarding of local customs/culture
- Harmonious development of tourism sector alongside other economic sectors

Any 3 x 1 = 3 marks

SECTION B

6. The table below shows sales of selected crops in tonnes, grown in Kenya between years 2015 to 2017. Use it to answer question (a) and b.(ii)

Crop	2015	2016	2017	Total
Tea	399 200	473 000	439 900	1,312,100
Maize	295 300	265 800	239 200	800,300
Wheat	227 300	215 900	156 900	600,100

Source: Economic Survey of Kenya, 2018

Calculate the percentage decrease in sales of wheat between the years 2015 and 2017

(a) (i)

$$227\,300 - 156\,900$$


$$= \frac{70400}{227300} \times 100\%$$

$$= 30.97\%$$

$$31\% \quad | \quad 31.0\%$$

$$\begin{aligned} 227300 - 156900 \\ = -70400 \\ = \frac{-70400}{227300} \times 100\% \\ = 30.97\% \end{aligned}$$

Any 2 x 1 = 2 marks

<p>(ii)</p>	<p>Give four reasons that may have led to the decrease in wheat sales between 2015 and 2017.</p> <ul style="list-style-type: none"> - Low production of wheat due to climate change/pests and diseases/infertile soils - Low payments/price fluctuations - Availability of cheap wheat imports - Inadequate market due to inadequate wheat consumption <p><i>Handwritten notes:</i> - competition from other grains - low demand - due to high prices</p> <p>Any 4 x 1 = 4</p>	<p>4 marks</p>
<p>(b) (i)</p>	<p>Draw a pie chart to represent the data on selected crops sales shown on the table above.</p> <p>Show your calculations.</p> <p style="text-align: center;">A PIE CHART REPRESENTING TOTAL CROP SALES FOR SELECTED CROPS IN KENYA BETWEEN 2015 TO 2017</p> 	

(ii) Give **four** reasons that may have led to the decrease in wheat sales between 2015 and 2017.

- Low production of wheat due to climate change/pests and diseases/infertile soils
- Low payments/price fluctuations
- Availability of cheap wheat imports
- Inadequate market due to inadequate wheat consumption

- Competition from other grains & foods
- Due to the rising price of wheat
- Due to high price of wheat

Any 4 x 1 = 4

4 marks

(b) (i) Draw a pie chart to represent the data on selected crops sales shown on the table above.
Show your calculations.

A PIE CHART REPRESENTING TOTAL CROP SALES FOR SELECTED CROPS IN KENYA BETWEEN 2015 TO 2017



without calculations
No marks
Any circle will do since there is no radius
Key/labeling not marked

Calculations

Tea = $\frac{1312100}{2712500} \times 360^\circ = 174^\circ$ / 174.14° / 174.1°

Maize = $\frac{800300}{2712500} \times 360^\circ = 106^\circ$ / 106.21° / 106.2°

Wheat = $\frac{600100}{2712500} \times 360^\circ = 80^\circ$ / 79.64° / 79.6°

Total = 360
Calculations 3
Each segment 13
Total marks 7
Marked as a sum

- Title - 1 mark
- Calculation of segments - 3 marks
- Each correctly drawn segment - 3 marks
- Total = 7 marks

(ii) Give **three** advantages of using a pie chart to represent Geographical data.

- It is simple to construct / draw
- It is easy to compare various components within a circle as they are all represented by angles
- Gives clear visual impression of individual components
- Makes it easy to assess the proportions of individual components as related to the whole by reading their respective angles

- It can present a wide range of data
Any 3 x 1 = 3 marks

<p>Wajirado Mogadishu</p>	<p>(c) (i) Name three counties in Kenya where wheat is grown on large scale.</p> <ul style="list-style-type: none"> - Uasin Gishu ✓ - Nyandarua ✓ - Narok ✓ - Nakuru ✓ - Laikipia ✓ - Meru ✓ - Trans Nzoia ✓ <p style="text-align: right;">- Elgeyo Marakwet ✓</p>	<p>Any 3 x 1 = 3 marks</p>
	<p>(ii) Explain three physical conditions that favour wheat growing in Kenya.</p> <ul style="list-style-type: none"> - Moderate rainfall/ 500 mm to 1270 mm to enhance the growth of Wheat - Temperatures ranging from 15°C to 20°C/warm conditions to facilitate growth/maturity of wheat - A warm/dry/sunny spell for ripening and harvesting - Fertile volcanic soils to sustain high production - Gently sloping/undulating landscape to allow proper drainage/mechanized cultivation - Well drained soils - Deep soils - High altitude 	<p>Any 3 x 2 = 6 marks</p> <p style="font-size: small;">Part in previous since it is the earth</p> <p style="font-size: small;">Mixes mixes of</p> <p style="font-size: small;">long high production</p> <p style="font-size: small;">good and</p>
<p>7. (a)</p>	<p>Name two categories of inland fresh water fisheries in East Africa.</p> <ul style="list-style-type: none"> - Fresh water lakes ✓ - Rivers ✓ - Fish ponds ✓ - Swamps ✓ <p style="text-align: right;">(Lakes/Reservoirs)</p>	<p>Any 2 x 1 = 2 marks</p> <p style="font-size: small;">09</p> <p style="font-size: small;">2 (25)</p>

5/10

(b) The map below shows some major fishing grounds of the world. Use it to answer questions b (i) and (ii).



(i) Identify the fishing grounds marked F and G

- F - North East Atlantic ✓
- G - North West Pacific ✓

2 x 1 = 2 marks

2

(ii)	<p>Explain three physical conditions that favour fishing in the ground marked G.</p> <ul style="list-style-type: none"> - Highly indented Coastline which provides suitable breeding grounds for fish/suitable sites for the fish ports/villages - Convergence of warm Oyashio and cold Kuroshio currents provide cool temperature suitable for fish/upwelling of water which brings minerals/fish food close to the surface - Shallow/broad continental shelf which provide favourable climatic conditions for growth of planktons/contain large quantities of fish (for commercial investment) exploitation - The rugged/mountainous landscape limits agricultural development therefore people practice fishing as an alternative source of Food/earning. <p><i>Handwritten notes: Islands, warm, cold, water/ice, wide, deep, generated water, numerous fish species</i></p>	
(c) (i)	<p>Name two methods used in small scale fishing in Kenya.</p> <ul style="list-style-type: none"> - Harpooning/use of spears - Use of gill nets - Use of herbs - Use of barrier traps - Use of baskets - Use of hand lines - Use of long lines <p><i>Handwritten notes: hook and line, hand pump</i></p>	<p>Any 3 x 2 = 6 marks</p> <p>Any 2 x 1 = 2 marks</p>
(ii)	<p>Describe how trawling method is used in fishing.</p> <ul style="list-style-type: none"> - A bag shaped net is attached to a trawler/ship - The net is cast into water by the trawler - The net's mouth is kept open by otter boards/head beams - The upper part of the net is kept afloat by corks/floats - weights are used to keep the lower parts of the net at the sea bed - Trawler drags the net along the sea bed - After sufficient fish has been caught, the net is hauled into the trawler 	

	to empty the fish	Any 5 x 1 = 5 marks
(d)	<p>Explain four ways in which fresh water fisheries are being conserved in Kenya.</p> <ul style="list-style-type: none"> - Restricting the disposal of untreated wastes into the fisheries to ensure that water remain clean for survival of fish - Restricting fishing to specific seasons to allow for breeding and maturing of fish - Breeding fingerlings to restock overfished areas - Standardizing the mesh/net hole size of nets used in fishing to ensure that only the mature fish are caught - Limiting the number of fishermen through issuance of licenses - Fish farming is being encouraged to ensure that there is sufficient supply of fish from other sources other than the natural fisheries 	Any 4 x 2 = 8 marks
8. (a)(i)	<p>Identify three renewable sources of energy.</p> <ul style="list-style-type: none"> - Sun / solar - Wind - Water - Waves/tides - Geothermal steam / underg steam - Biomass - Wood/trees - Draught animals 	Any 3 x 1 = 3 marks

(ii)	<p>State five disadvantages of using coal as a form of energy.</p> <ul style="list-style-type: none"> - Coal is <u>exhaustible/non-renewable</u> form of energy - Coal is <u>bulky</u> to transport - <u>Soot/smoke</u> from coal pollutes environment 	
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- increase in prices / low buying standard / high cost of living
- spend more on exchange in importation / leading currency reserve / imbalance of trade
- High cost of production / reduce industrial growth
- Scarcity of by products / scarcity of raw material
- Increase in transport cost / price increase in all commodities / inflation / reduce buying
- alternative source of energy / reduce over dependence on oil

- oil prospecting / oil company
low in cost of production
low agricultural production

	<ul style="list-style-type: none"> - Coal has low calorific value - Coal excavation lead to degradation of the environment/pollute environment - Coal is dirty/dusty - It is expensive to mine / difficult to mine - It is radio active 	<p>low heat / low energy value</p> <p>large open pits are left behind / land degradation</p> <p>Any 5 x 1 = 5 marks</p>
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(b) (i)	<p>What is energy crisis?</p> <p>It refers to a situation where the prices of fossil fuel rise sharply as a result of short supply relative to demand.</p>	<p>1 x 2 = 2 marks</p>
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- increase in oil prices has lead to development of alternative sources of energy
- increase in oil prices has triggered prospecting of oil
- increase in oil prices has triggered search for alternative sources of energy

(ii)	<p>Explain four ways in which energy crisis affects the economy of Kenya.</p> <ul style="list-style-type: none"> - Increase in oil prices triggers increase in prices of commodities/inflation leading to low standards of living/high cost of living - Increase in prices of crude oil makes Kenya spend a lot of foreign exchange in importation lowering foreign currency reserves/brings about imbalance of trade/slow down the rate of economic growth - Increase in oil prices leads to high cost of production leading to slow industrial growth - Oil scarcity leads to scarcity of by-products of oil leading the scarcity of raw materials in some industries - Increase in fuel prices leads to an increase in transport costs 	<p>- Increase in oil prices leads to a rise in the cost of production which in turn leads to low agricultural production / price shortage</p> <p>- Increase in oil prices leads to high demand for wood fuel leading to deforestation</p> <p>Any 4 x 2 = 8 marks</p>
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(c)	<p>Some candidates carried out a field study on uses of energy by sampling the households around their school.</p> <p>(i) State three reasons why the students would be divided into groups.</p> <ul style="list-style-type: none"> - To ensure active participation of all students - To save time since different areas are covered at the same time - To ensure that all areas are covered if the area under study was large - For easy control and management of students/maintain discipline of students 	<p>field detailed study</p>
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56
4
32
18

3 -> promote teamwork

1	<ul style="list-style-type: none"> - For effective use of available learning resources - To reduce fatigue among students - To ease congestion 	<p>Any 3 x 1 = 3 marks</p>
(ii)	<p>Identify two sampling techniques that the students may have used during the study</p> <ul style="list-style-type: none"> - Stratified - Random - Systematic 	<p>Any 2 x 1 = 2 marks</p>
(iii)	<p>Give two advantages of sampling the households for the study</p> <ul style="list-style-type: none"> - To save time - To reduce bias - To allow for detailed study - To reduce costs. 	<p>2 x 1 = 2 marks</p>
9. (a)(i)	<p>Give three examples of Agricultural non-food processing industries in Kenya.</p> <ul style="list-style-type: none"> - Textile/clothing production - Sisal fibre making - Leather tanning/footwear making. - Wood processing/lumbering/paper manufacturing - Pyrethrum processing - Beeswax processing - Cocoa processing - Rubber processing - Soap making - Glass making 	<p>Any 3 x 1 = 3 marks</p>

20

67
60
7
133
265

68
65
133

12

<p>(ii)</p>	<p>State five ways in which the government policy influences location of industries in Kenya.</p> <ul style="list-style-type: none"> - Legislating industrial laws that <u>restrict industrial location to given areas</u> - Offering <u>special concessions/financial support</u> to industrialists towards industrial locations - Developing <u>roads/railway lines/airports</u> that attracts industries to a given area - Developing of sources of <u>power/hydroelectric power/geothermal</u> - Providing <u>security</u> in areas where industries are meant to be established/located - Government may <u>set aside land</u> for the location of certain industries - Government may provide <u>technical support</u> advise on industrial locations - Signing industrial locational agreements with other countries <p><i>communication system</i></p> <p><i>tax relief</i></p> <p><i>any 5 x 1 = 5 marks</i></p>	
<p>(b) (i)</p>	<p>Give five characteristics of the cottage industry in India.</p> <ul style="list-style-type: none"> - Raw materials are mainly <u>locally sourced/locally available</u> / <i>Recycled</i> - <u>Simple tools/equipment</u> are largely used in production - The level of <u>capital investment</u> is relatively low/requires <u>little capital</u> - Workshops are <u>widespread/located in homes</u> / <i>in w. towns</i> - Industries are owned by <u>individuals/family/groups</u> - The finished products are <u>relatively cheap</u> - Products are for <u>both domestic and external market</u> - They are <u>labour intensive</u> - The crafts persons are <u>highly skilled</u> <p><i>any 5 x 1 = 5 marks</i></p> <p><i>5/</i></p>	

(ii)	<p>Explain three problems facing the Jua Kali industries in Kenya.</p> <ul style="list-style-type: none"> - Goods face <u>discrimination</u> due to wrong attitude leading to <u>low demand/competition</u> from well established manufacturers this <u>reduces sales</u> - <u>Inadequate capital</u> for expansion leading to low production - <u>Exploitation</u> by middle men/business people who offer low prices which discourages people in industries - <u>Poor working conditions</u> as most work is done in the open sun/easily affected by weather changes - <u>Frequent power blackouts</u> which disrupt work leading to losses - <u>Difficulty in getting raw materials</u> leading to low production - <u>Inadequate security</u> leading to losses of goods <p style="text-align: right;">Any 3 x 2 = 6 marks</p>	
(c)	<p>You intend to carry out a field study in an industry with the local environment.</p> <p>(i) Give two sources of secondary data you will refer to before conducting the field study.</p> <ul style="list-style-type: none"> - Textbooks ✓ - Newspapers ✓ - Magazines ✓ - Periodicals ✓ - Journals ✓ - Audio/video tapes ✓ - Maps ✓ - Statistical records ✓ - Internet ✓ <p style="text-align: right;">Any 2 x 1 = 2 marks</p>	

(ii)	Identify four benefits of the industry to the local community that you are likely to find out during the study. <ul style="list-style-type: none"> - Creation of employment opportunities - Improvement of transport network - Development of social amenities - Availability of market for local produce/resources - Access to sources of power/HEP - Development of settlement - Development of cooperative societies 	Improved living standards / Earn income Communication Any 4 x 1 = 4 marks
10. (a) (i)	What is transport? This is the physical movement of goods and people from one place to another.	1 x 2 = 2 marks
(ii)	Name two international airports in Kenya. <ul style="list-style-type: none"> - Jomo Kenyatta International Airport - Moi International Airport - Eldoret International Airport - Kisumu international Airport - Wajir international airport - Isiolo international airport - Malden international airport 	Any 2 x 1 = 2 marks
(iii)	Give four advantages of air transport over road transport. <ul style="list-style-type: none"> - Air transport is faster - It is more efficient in transporting perishable goods - It is free of traffic congestion - Helicopters can land in remote areas - Planes can be used for activities like spraying of farms - There are fewer accidents than road transport 	Less congestion Inaccessible areas emergency service

Government of Kenya
 Ministry of Education
 Department of Examinations
 Nairobi

	- Air transport is more comfortable over longer distances	Any 4 x 1 = 4 marks 4
(b)	<p>State five benefits that would result from improving the conditions of roads in rural areas of Kenya.</p> <ul style="list-style-type: none"> - It would encourage <u>setting up of industries</u>/growth of tourism - It would encourage the <u>setting up/improvement of social amenities</u> - It would attract investors/encourage diverse investments/improve <u>trade</u> - It would encourage effective exploitation of agricultural/mineral/forest resources - It would lead to growth/development of urban <u>centres</u> - It would enhance access to security services - It would lead to creation of more employment opportunities 	<p>industrial social trade employment urban services centres</p> <p>Any 5 x 1 = 5 marks 5</p>

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62
71
139

6/26

- (c) The sketch map below shows the Great Lakes and the St. Lawrence seaway. Use it to answer question (c)



Name:

- (i) The lake marked J

- L. Superior ✓

1 mark

- (ii) The river marked K

- River Ottawa ✓

1 mark

- (iii) The ports marked L and M

L - Buffalo ✓

1 mark

M - Quebec ✓

1 mark

- (d) Explain **four** ways in which the Great Lakes and the St. Lawrence seaway has contributed to the economies of United States of America (USA) and Canada.

- The dams found along the route provide hydroelectric power for both domestic and industrial use
- It provides cheap/easy navigation means of transport for imports and exports encouraging trade *agriculture*
- The seaway has created employment opportunities in the transport industry raising the standards of living of the people in both countries.
- It has led to the growth of ports and towns along its course. These have become focal points for various economic activities
- Due to accessibility to raw materials there has been extensive industrial development in the area
- Tariffs charged earn the countries income
- The lakes and the seaway are a source of fresh water for domestic/industrial use

*- The seaway is a factor for attraction
 leading to the growth of ports and towns
 along its course*

Any 4 x 2 = 8 marks

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