TAMPINES MERIDIAN JUNIOR COLLEGE

JC1 YEAR-END EXAMINATION

CANDIDATE NAME	
CIVICS GROUP	

H2 GEOGRAPHY **9173/01**

Paper 1 **05 October 2023**
3 hours

Additional Materials: Writing Paper
1 Insert

READ THESE INSTRUCTIONS FIRST

Write your name and Civics Group clearly on **all** the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use an HB pencil for any diagrams or graphs.
Do not use staplers, paper clips, glue or correction fluid.

Answer **all** questions.

The Insert contains all the Resources referred to in the questions.
You should make a reference to appropriate examples studied in the field or the classroom, even where the examples are not specifically requested by the question.
Diagrams and sketch maps should be drawn wherever they serve to illustrate an answer.
You are reminded of the need for good English and clear presentation in your answers.

For Examiners' Use	
Total	

Start each question on a fresh sheet of paper.
At the end of the examination, fasten all your work securely for submission.
The number of marks is given in the brackets [ ] at the end of each question or part question.

Cluster 1: Development, Economy and Environment

1

Resource 1 shows the network connections and profits earned by countries in producing manufactured goods between 2000 and 2011.
Resource 2 shows the distribution of Zara's suppliers by Region from 2007 to 2012.
Resource 3 shows Zara's Global Production Network (GPN).
Resource 4a and 4b are news articles showing labour issues arising from Zara's GPN

(a) Describe the changes in the pattern of network connections from 2000 to 2011 shown in Resource 1 [3]

- Intensity of network connections increased for all countries
- Most interconnected country from Asia-Pacific changed from United States in 2000 to United States in 2011
- Most interconnected country from Europe remained as Germany from 2000 to 2011

(b) Using Resource 1, describe the change in China's profits in manufactured goods between 2000 and 2011 and suggest reasons for this change. [6]

- China profits in manufactured goods increased by over 10 times
- Signing of free trade agreements with other countries/ joining of WTO
- Creation of Special Economic Zones to attract TNCs
- Keep currency from appreciating
- Comparative advantage in low labour cost and state effort to attract TNCs

(c) Using Resource 2, describe the change in distribution of Zara's suppliers from 2007 to 2012. [4]

- More than half of Zara's suppliers were European in 2007 though this saw a decline by 22 percentage points through the years.
- Asian suppliers saw a reversed trend, with from 2007 to 2012, a rise of 18.3 percentage points.
- Although Europe dominated Zara's supplier distribution since 2007, there was a shift to Asia by 2011.
- Africa (6.9% in 2007 and 8.7% in 2012) and the Americas (2.7% in 2007 and 4.6% in 2012) remained small players in Zara's supplier distribution, though both experienced an increase in their shares from 2007 to 2012.

(d) With reference to Resource 3, explain how information and communication (ICT) and transport technologies aid in facilitating Zara's global operations. [6]

- Frequency of flights to and from Spain will support a more global mode of production, to allow Zara to enjoy lower cost production in Asia. Among the European suppliers,

[efficiencies in air and overland transport] also support Zara's need to be close to its suppliers.

- Frequent, small batch distribution is possible due transport and ICT technologies. Efficient modes of transport would have allowed for distribution of products to be frequent, and without/ with little delay. Technologies could also mean there is less need for bulk transportation of products and related economies of scale- hence small batch distribution is possible.

- Effective modes of communication such as 3omputerized inventory controls accessible company wide etc, will make tracking sales, fulfilling shipments and delivering new orders more quickly.

- ICT technologies could allow consumers to give real time feedback, or post sales feedback. Channels such as social media will also allow Zara to keep up on trends and on consumer preferences etc. Communication between store and the design team can be instantaneous thanks to ICT.

(e)	Using Resource 3, explain the role of intra and inter-firm networks in supporting Zara growth as a TNC.	[6]

- Suppliers help to provide raw materials for Zara

- Subcontractors produce Zara's apparel since Zara does not manufacture any of its products on its own – lower cost of labour – lower production cost → maximise profit

- Logistics firms are important in facilitating the movement of Zara's finished goods from production bases to Spain, Zara's home country

- Logistics firms are also important in facilitating the movement of finished goods from the warehouse in Spain to the markets in small batches in a timely manner that helps Zara to adjust quickly to changes in consumers' demands and preferences

- Local retailers can help Zara to sell its products to consumers in markets where there are barriers to entry for foreign-owned businesses.

- Design team (Intra-firm) help Zara design new clothes that fit consumer taste and preference of the time/current trend

(f)	Using Resource 4a and 4b, explain the impacts of labour unions on TNCs like Zara.	[5]

- Positive socio-economic impact → pay raise
- Negative social impact → arrested and loss of jobs

Cluster 2: Tropical Environments

2

Resource 5 shows the climographs of Station X and Station Y in Australia.
Resource 6 shows some climatic processes happening in Australia.
Resource 7 shows the Sea Surface Temperature (SST) anomalies in August 2023

(a) Using Resources 5 and 6, explain the difference in rainfall characteristics in Station X and Y. [6]

- Station X have seasonal rainfall pattern and high rainfall of 1536mm [1]
- Seasonal rainfall pattern as it is Am with higher rainfall from Nov to March when ITCZ shift south Dec/Jan it is a low pressure area [1] draw in monsoon rain /moisture laden winds as air move from high to low pressure. When ITCZ shift north – Aust in the southern hemisphere experience dry season [1]

- Station Y have much lower rainfall/dry all year round and low rainfall of 163mm [1]
- Station Y located at higher latitude around 24^{o}S – under the influence of the sub tropical high pressure belt [1] – sinking air is stable, suppresses cloud formation [1] leading to low rainfall

(b) Using Resources 5 and 6, explain the differences in temperature characteristics in Station X and Y. [6]

- Station X – high temperature all year round & small annual temperature range [1]
- Station Y – Higher temperature near start/end of year, lower temperature June/July

- Explain ATR via difference in latitude [1] and tilt of the earth [1]
- Explain AAT temperature differences through maritime and continental effect [2]

(c) Using Resource 6, compare the path of Cyclone George and Cyclone Yasi [3]

- Both moved in a westward direction
- Cyclone George moved a longer distance than Cyclone Yasi
- Cyclone George moved further inland and into a higher latitude

(d) Explain the conditions that could have contributed to the formation of Cyclone Yasi as shown in Resource 6. [6]

F: The tropical cyclone needs a surface condition that have warm sea surface temperature of at least 28oC and depth of warm water at least 60-70m deep.
P: The warm sea surface temperature encourages initial evaporation of water vapour which rises, cools and condenses to form cumulonimbus clouds (tropical storms). The rising of air also creates a low pressure zone that enables it to pull in more air from the

surrounding, which then undergoes the same cloud formation process that contributes to tropical cyclone formation/growth. Warm water at least 60-70m deep is also required so that cold waters are not stirred up easily to disrupt/halt the cyclone formation process.
O: These favourable sea surface conditions facilitates cyclone formation.

F: Another surface condition is the location at least 5° N or S of equator for the Coriolis effect to be significant enough to facilitate cyclone formation.
P: As seen from Resource 5, the cyclone track originate near the equator but not at the equator because the Coriolis Effect is weak and will stop a circular air flow developing, as seen in resource 4, the cyclone is moving at a latitude of slightly above 23.5oN, as the Coriolis effect is strong enough to deflect the winds causing it to spin and gain speed. While 23.5 oN may be near the STPH, the STPH would also have further shifted northwards in these months, allowing for tropical cyclone to form
O: Thus, another surface (spatial) condition is latitudinal location of above 5oN or S of the equator

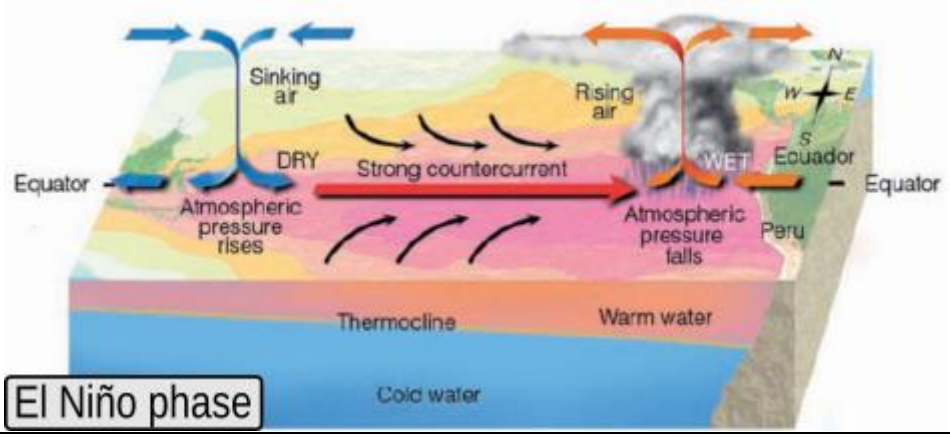
F: One other atmospheric condition that favours the development of tropical cyclone is the relative humidity of at least 75%.
P: high relative humidity entails that the water vapour concentration in the atmosphere is enough for the condensation to contribute to formation of cumulonimbus clouds, the water vapour condensation also releases latent heat energy which further allows the clouds to rise and also enhance the low pressure zone which enables it to draw in more air from the surrounding,
O: which contributes to cyclone formation.
Sometimes FPO, PO can be combined into the same sentence as long as meaning is conveyed

F: Also an atmospheric condition is low vertical wind shear OR high pressure at the upper troposphere
P: This ensures air sucked into the cyclone can spray out into the upper atmosphere. That is, the presence of high pressure in the upper troposphere facilitates outflow at the top of the rotating system. Without this, the in-rushing air at ground level would simply fill the low pressure and the system would die
O: The atmospheric condition of the absence of a vertical wind shear also allows the development of the tall cumulonimbus clouds and convectional rainfall from my own knowledge.

(e) Describe the SST anomalies as shown in Resource 7. [3]

- Majority area of the Pacific ocean experiences warmer than normal SST anomalies of at least 0.5^{o}C and above
- Warmest by more than 3^{o}C along EQ to 15^{o}S and 100W to 80W along the west coast of South America
- Coolest areas near Philippines/ 10^{o}N to 30^{o}N between 120E to 140E and 145W to 130W

Accept other valid description with <u>adjectives and evidence</u>

	(f)	Using an annotated cross-section sketch, explain how the SST anomalies shown in Resource 7 can affect rainfall in Australia and South America.	[6]
	• Cross section sketch should include title and proper explanation Sample:  		

Section B

Answer **either** question 3 **or** question 4 and answer **either** question 5 **or** question 6.

Cluster 1: Development, Economy and Environment

3		'Transnational Corporations (TNCs) bring about more good than harm for countries.' Evaluate this statement.	[20]

Possible Approaches:

Candidates could approach the question by making a judgement on whether TNCs bring about more positive or negative impacts by considering social, economic and environmental impacts. Candidates could highlight under what conditions would these impacts be more good than harm, such as long term economic growth, damage to environment/society, transfer to technology.

Candidates could also approach the question by making a judgement on whether TNCs do more harm than good on host or home economies and the extent to which states can regulate the TNC to ensure that it is more good than harm or vice-versa.

Levels marked using Generic Level Descriptors for 20m H2 essays

4		'Impacts of extractive industries are mostly negative.' Evaluate this statement.	[20]

Possible Approaches:

Candidates could approach the question by making a judgement on whether extractive industries bring about more positive or negative impacts by considering social, economic and environmental impacts.
Candidates could highlight under what conditions would these impacts be negative such as pollution to air, land and water and how it affect the long term regenerative capacity of the environment. Candidates could then weight these impacts against countries with extractive industries and developed well such as USA, Canada, Botswana compared to countries with extractive industries which are suffering such as Nauru, Nigeria and Venezuela.

Candidates could also approach the question by making a judgement on whether extractive bring about more negative impacts or positive impacts based on the conditions in which these impacts occurs such as good governance, diversification of economy, proper legislation.

Levels marked using Generic Level Descriptors for 20m H2 essays

	Cluster 2: Tropical Environments		
5		Evaluate the factors that influence the formation of karst landforms in the tropics.	[20]

Possible Approaches:

Candidates could approach the question by making a judgement on whether the formation of karst landforms such as conical karst, tower karst, stalactite, stalagmite and caverns are influenced by factors such as climate, geology, vegetation and human activities. Candidates could consider humid tropical climates, presence of limestone with more than 80% calcium carbonate, vegetation that provides humic acid and human activities such as mining and deforestation which could expose underlying limestone bedrock.

Candidates could also approach the question by making a judgment on whether some factors have a greater influence in some contexts than others through a consideration of two or more case studies. Candidates could evaluate the relative significance of the different factors in each case study and analyse the interplay between the factors.

Levels marked using Generic Level Descriptors for H2 essays

6		'The movement of materials on slopes is mostly affected by human activities.' Evaluate this statement.	[20]

Possible Approaches:

Candidates could approach the question by making a judgement on whether the movement of materials on slopes is influenced by human factors through a consideration of the relative significance of human factors vis-à-vis natural factors. Candidates could analyse natural factors such as prolonged rainfall and earthquakes, which could trigger a sudden movement of materials. Candidates could also analyse both natural and human factors which may contribute to movement of materials on slopes over time such as weathering and deforestation. Candidates could even analyse human factors such as slope management strategies which could reduce the occurrence of movement of materials on slopes.

Candidates could also approach the question by making a judgment on whether some factors have a greater influence in some contexts than others through a consideration of two or more case studies. Candidates could evaluate the relative significance of the different factors in each case study and analyse the interplay between the factors.

Levels marked using Generic Level Descriptors for H2 essays