YISHUN SECONDARY SCHOOL
END-OF-YEAR EXAMINATION 2022
SECONDARY 2 EXPRESS

CANDIDATE NAME							
CLASS				INDEX NUMBER			

GEOGRAPHY

6 October 2022
1 hour 15 minutes

Candidates answer on the Question Paper.

READ THESE INSTRUCTIONS FIRST

Write your name and index number on the Question Paper.
Write in dark blue or black pen.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.

Section A
You must answer Question 1.

Section B
You must answer Question 2.

Candidates should support their answers with the use of relevant examples.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

The number of marks is given in brackets [ ] at the end of each question or part question.

For examiner's use
36

Section A

Answer all questions

1 Study Fig. 1, which shows the price of Housing and Development Board (HDB) flats from the year 1985 to 2025.

Price of HDB flats

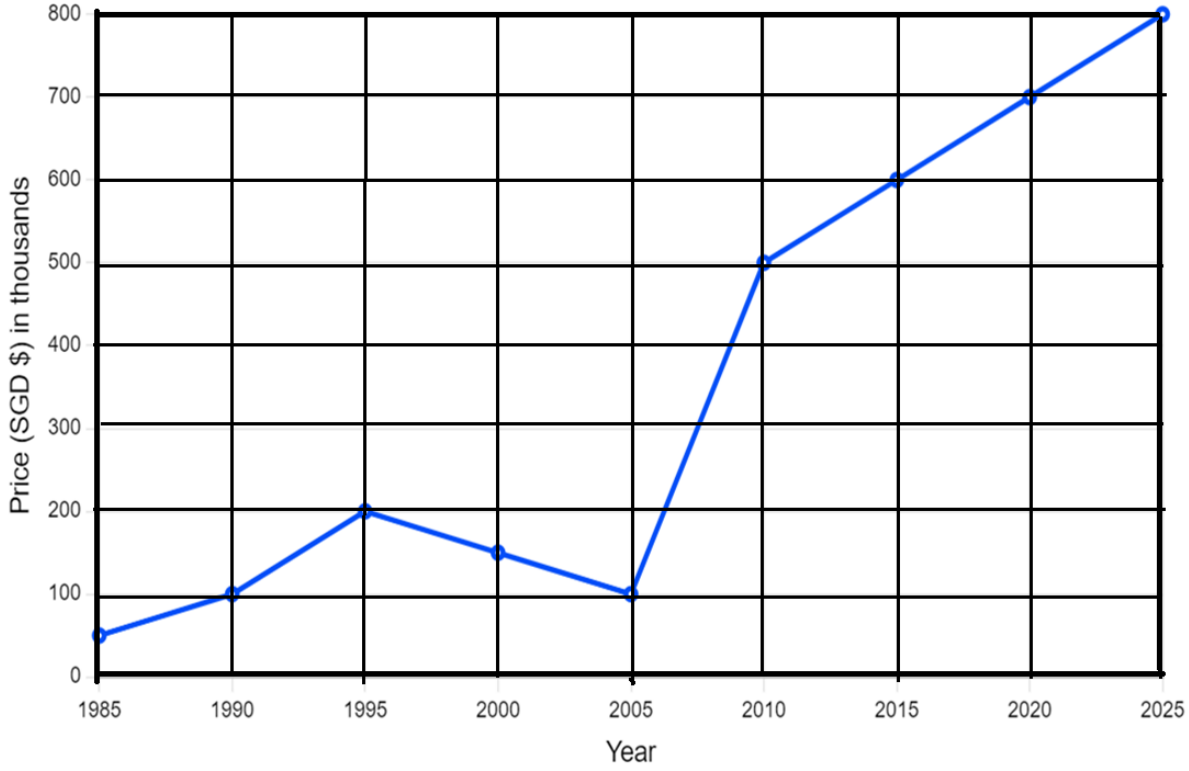

Fig. 1

(a) Describe the changes in the price of HDB flats from 1985 to 2025.

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……[4]

(b) Study Photograph A, which shows a self-built squatter settlement.

Photograph A

Self-built squatter settlement

Using Photograph A, describe the characteristics of the self-built squatter settlement.

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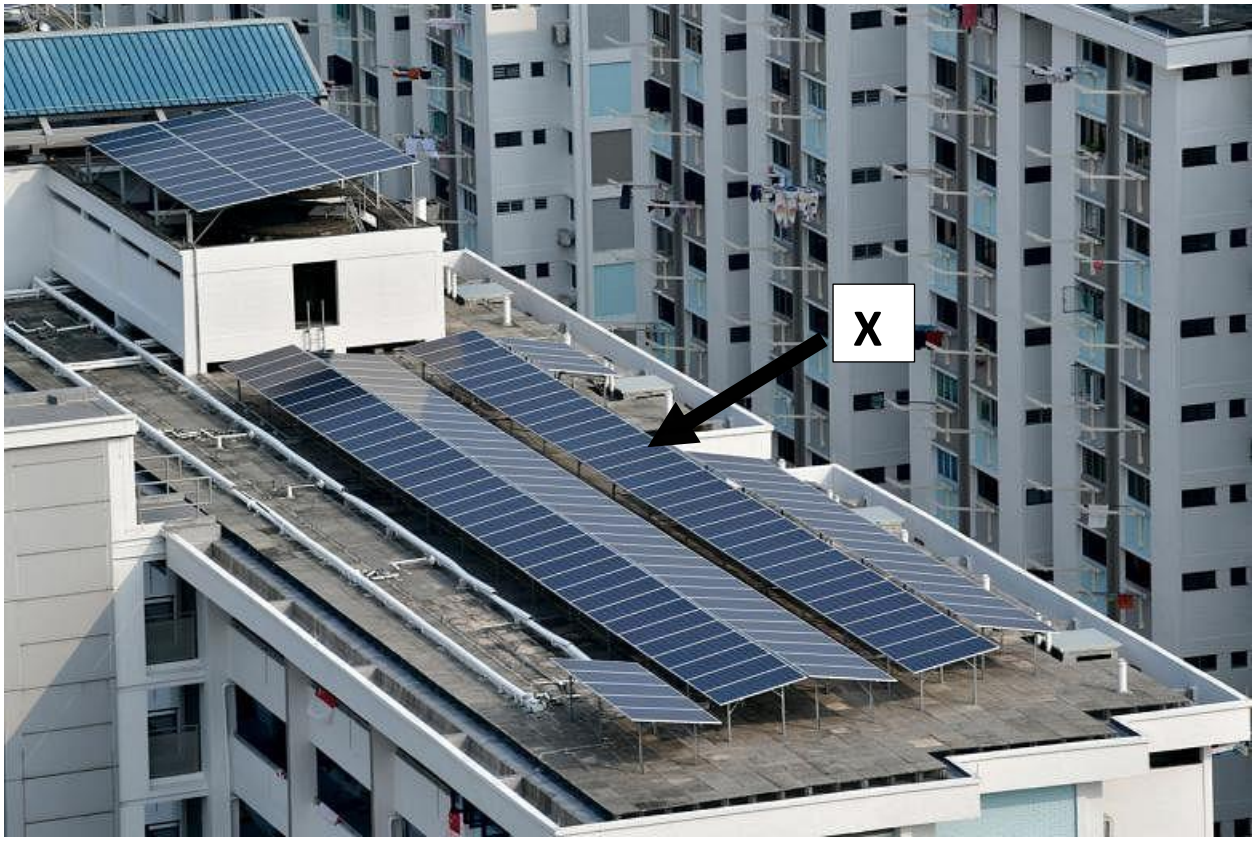
……[3]

(c) Study Photograph B, which shows an environmental feature on the rooftop of a public housing estate in Singapore.

Photograph B

Environmental feature on the rooftop



Using Photograph B, identify the environmental feature labelled X and describe how using it benefits the environment.

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……[2]

(d) Explain how zoning affects the location of houses.

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(e) Explain how the Building and Construction Authority (BCA) in Singapore ensures that the formal housing in Singapore is safe and provides a good quality of life.

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(f) Explain how extracting natural resources for housing developments can lead to negative environmental impacts.

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Section B

Answer Question 2

2 Study Table 1, which shows the number of vehicles and the volume of greenhouse gas emissions in Germany.

Table 1

Year	Number of vehicles in Germany	Volume of greenhouse gases emitted
2000	41 million	25 billion metric tonnes
2010	48 million	32 billion metric tonnes
2020	50 million	37 billion metric tonnes

(a) Describe the relationship between number of vehicles and the greenhouse gas emissions.

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……[3]

(b) Explain intermodal connectivity and its advantages.

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(c) Study Photograph C, which shows the traffic condition of a city.

Photograph C

Traffic conditions of a city

Identify the problem above and state the two indicators of the problem.

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(d) Study Photograph D, which shows an item that can be found along the road in Singapore.

Photograph D

Item along the road in Singapore

Identify the measure above and explain why it is necessary on the roads.

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(e) ‘Research and development is the most effective strategy to sustainably manage transport systems.’ To what extent do you agree with this statement. Use examples to support your answer.

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Additional Page

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Additional Page

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MARK SCHEME AND TABLES OF SPECIFICATIONS

Section A

Answer all questions

1 Study Fig. 1 which shows the price of Housing and Development Board (HDB) flats from the year 1985 to 2025.

Price of HDB flats

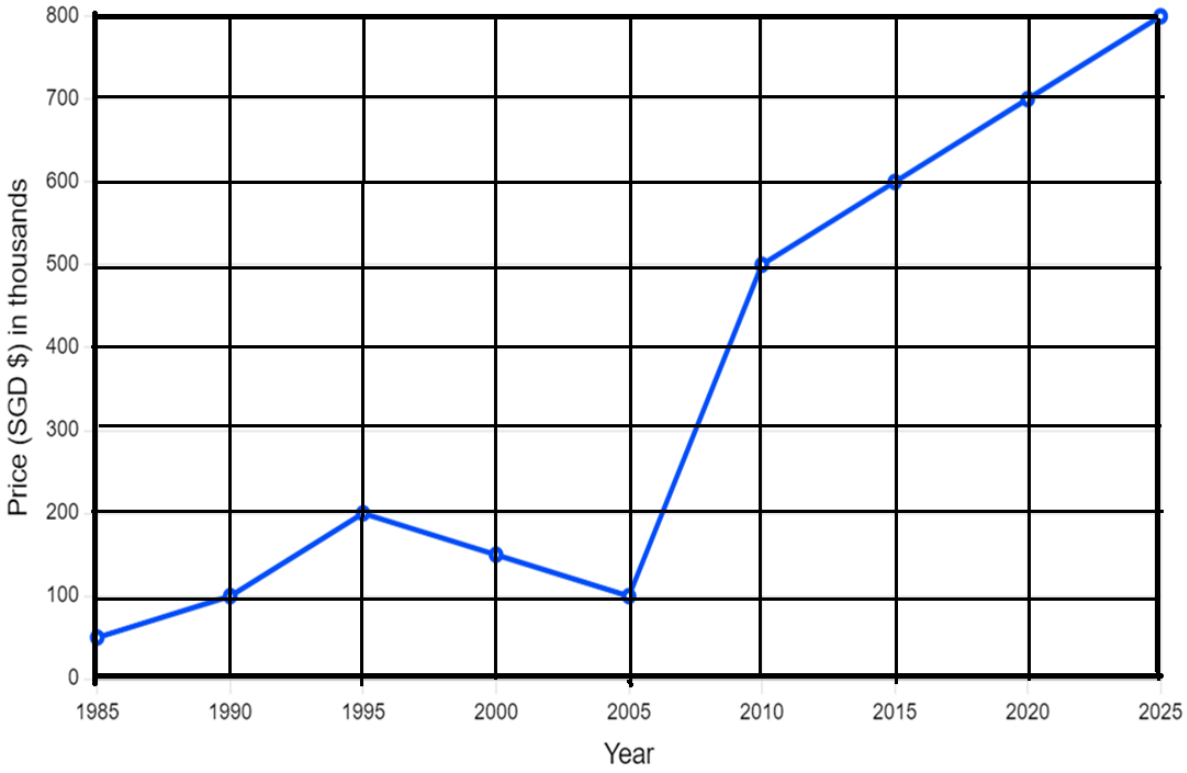

Fig. 1

(a) Describe the changes in the price of HDB flats from 1985 to 2025. [4]

- There is an overall increase. [1]
- From 1985 to 1995, there was a gradual increase from $70 000 to $200 000. [1]
- From 1995 to 2005, there was a gradual decrease from $200 000 to $100 000. [1]
- From 2005 to 2025, there was a sharp increase from $100 000 to $800 000. [1]

(b) Study Photograph A, which shows a self-built squatter settlement.

Photograph A

Self- built squatter settlement

Using Photograph A, describe the characteristics of the self-built squatter settlement. [3]

- The self-built squatter settlement are **disorganised** is typically built in **an unplanned fashion**. [1]
- The houses are built using **low quality scavenged materials** such as repurposed zinc. [1]
- The houses are **not sturdy** and are at risk of collapsing or being flooded on rainy days. [1]

(c) Study Photograph B, which shows an environmental feature on the rooftop of a public housing estate in Singapore.

Photograph B

Environmental feature on the rooftop

Using Photograph B, identify the environmental feature labelled X and describe how using it benefits the environment. [2]

Identify

- Solar panels [1]

Describe

- **Solar panels can be used to offset electrical consumption** of common lighting in housing developments. As using solar panels/energy is an example of **green technology**, it is cleaner and more favourable for the environment as it does not emit harmful greenhouse gases. [1]

(d) Explain how zoning affects the location of houses. [3]

- **Zoning restricts the type of activities** and **land-use permitted** on specific sites. [1]
- Planning authorities will use zoning as a **planning control tool** for ensuring that the environment is well developed. [1]
- This is done to shape the layout of cities and hence **only certain land parcels will be set aside for housing, which limits the locations available.** [1]

	(e)	Explain how finance support schemes for developers can prevent housing shortage. • Housing financial support schemes for developers can **lower the cost of building houses.** This can encourage developers to consider **building more houses** and prevent housing shortage. [1] • Financial support schemes are important because they enable developers to **sell houses at affordable prices.** [1] • Without these schemes, formal housing may be too expensive, hence out of reach for many. [1]
	(e)	Explain how the Building and Construction Authority (BCA) in Singapore ensures that the formal housing in Singapore are safe and provides a good quality of life. [3] • The Building and Construction Authority (BCA) in Singapore is a planning authority that provides **guidelines and regulations** on the **building quality and safety** of private and public houses. [1] • They ensure that all buildings in Singapore are constructed using **high quality materials** such as concrete, metal or hard wood. [1] • Hence, a house that is built using high quality building materials **can withstand element** such as heavy rain and strong winds which will protect the occupants from hazards and last a long time, thus ensuring a good quality of life for the occupants. [1]
	(f)	Explain how extracting natural resources for housing developments can lead to negative environmental impacts. [3] • **To make space** for the building of houses, land needs to be cleared. This results in the depletion of forests/ **deforestation**. [1] • **As populations within cities grow**, the **demand for housing increases** as well. This will cause more resources to be extracted from the environment. [1] • **Resources** such as fuel for cooking, wood for furniture and steel through mining and water for daily use will **put a toll on the natural environment**. [1]

Section B

Answer all questions

2 Study Table 1, which shows the number of vehicles and the volume of greenhouse gas emissions in Germany.

Table 1

Year	Number of vehicles in Germany	Volume of greenhouse gases emitted
2000	41 million	25 billion metric tonnes
2010	48 million	32 billion metric tonnes
2020	50 million	37 billion metric tonnes

(a) Describe the relationship between the COE prices and the engine capacity of the car. [3]

- There is a **direct relationship** between number of vehicles and the volume of greenhouse gases. [1]
- As the number of vehicles **increases**, the volume of greenhouse gases emitted **increases too**. [1]
- When the number of vehicles in Germany was **41 million in 2000**, the volume of greenhouse gases emitted was **25 billion metric tonnes**. However, in 2020, the number of vehicles in Germany increased to was **50 million in 2020**, the volume of greenhouse gases emitted also increased to **37 billion metric tonnes**. [1]

(b) Explain intermodal connectivity and its advantages. [3]

- Intermodal connectivity is the **seamless movement of passengers and freight** using **two or more transport** modes. [1]

- Intermodal transport **taps on the strengths of each transport mode** with the goal of **linking different modal networks** so that more destinations can be reached. [1]

- Intermodal connectivity is key to ensuring that passengers **do not get lost** and that goods **do not go missing** while changing between modes at intermodal interchanges or terminals. [1]

	(c)	Study Photograph C, which shows the traffic conditions of a city. **Photograph C** **Traffic conditions of a city** 
		Identify the problem above and state the two indicators of the problem. [3] **<u>Identify</u>** • Traffic congestion [1] **<u>Indicators</u>** • Slow-moving traffic. [1] • High traffic volume. [1]

	(d)	Study Photograph D, which shows an item that can be found along the road. **Photograph D** **Item along the road** 
		Identify the measure above and explain why it is necessary on the roads. [3] **<u>Identify</u>** • **Speed camera**/enforcement camera. [1] **<u>Explain</u>** • Speed cameras are **useful in reducing the amount of traffic accidents**. They are painted in orange **to alert motorists**. The speed cameras act as a deterrence measure to remind drivers to travel within the speed limit on roads. [1] • For drivers who flout the laws, the speed cameras will **detect the speeding offence**, thus **promoting safety among all road users**. [1]

	(e)	Research and development is the most effective strategy to sustainably manage transport systems.' To what extent do you agree with this statement. Use examples to support your answer. [6] I agree to a small extent that research and development is the most effective strategy to sustainably manage transport systems. Cities are investing in research and development to explore ways to make transport systems more sustainable. Cities are developing mobile applications to improve mobility and safer and more environmentally friendly transport modes. For example, Google Maps is an application that provide real-time traffic information on travel time, costs and possible routes to undertake via various modes. This can shape commuters travel habits and choice of transportation. The Land Transport Authority of Singapore also has installed an electronic bus schedule display board at bus stations to provide real time information for commuters. **As a result, commuters can better plan their journeys and make public transportation an attractive mode of transport.** However there are other strategies such as laws and policies on transport such as road pricing. Drivers are charged a premium when they use certain roads during specific time periods. This makes driving costlier compared to using public transport. For example, in Stockholm, Sweden two-thirds off approximately 318,000 people commute daily into the city centre for work. Since the congestion pricing system in Stockholm became official in 2007, Traffic in and out of the city has reduced by approximately 20% and traffic delays have decreased by 30 to 50%. **As a result, through road pricing, road congestion is reduced, commuters are now using public transport and the government can raise revenue to finance the transport system.** **Level 1 (0-2 marks)** At this level answers will be generalized or with minimal support if any stand were given at all. Reasoning rather weak and expression may be unclear. A basic answer that has little development. **Level 2 (3-4 marks)** Disagreement or agreement will be support by appropriate detail. Or, both agreement and disagreement are considered, but support is patchy so that the answer is not full. Good reasoning and logic in parts of the answer with good expression in places. **Level 3 (5-6 marks)** At this level answers will be supported by sound knowledge. Both agreement and disagreement are considered and well-supported. Reasoning is clear and logical with good expression

TABLES OF SPECIFICATIONS

Question	AO1+2	AO1+3
1 (a)		4
1 (b)		3
1 (c)		2
1 (d)	3	
1 (e)	3	
1 (f)	3	
Total Section A	**9**	**9**
2 (a)		3
2 (b)	3	
2 (c)		3
2 (d)		3
2 (e)	6	
Total Section B	**9**	**9**
Total Section A & B	**18**	**18**