PASIR RIS CREST SECONDARY SCHOOL
End-of-Year Examination 2022
Secondary Two Express

CANDIDATE NAME					
CLASS		/		INDEX NUMBER	

Geography

12 October 2022
1 hour 30 minutes

READ THESE INSTRUCTIONS FIRST

Write your name, class and index number on all the work you hand in.
Write in dark blue or black pen.
Do not use staples, paper clips, glue or correction fluid.

Answer **ALL** questions.

Candidates should support their answers with the use of relevant examples.
The number of marks is given in brackets [ ] at the end of each question or part question.
The total number of marks for this paper is 45.

For Examiner's Use
45
Parent's Signature

This document consists of **9** printed pages.

Section A: Structured Questions [35 marks]

1 Fig. 1 shows an informal housing settlement in Tondo, in the city of Manila in the Philippines.

(a) On Fig. 1, annotate three features of an informal housing settlement. [3]

Fig. 1

(b) Describe one social and one environmental threat people living in Tondo may face.
[2]

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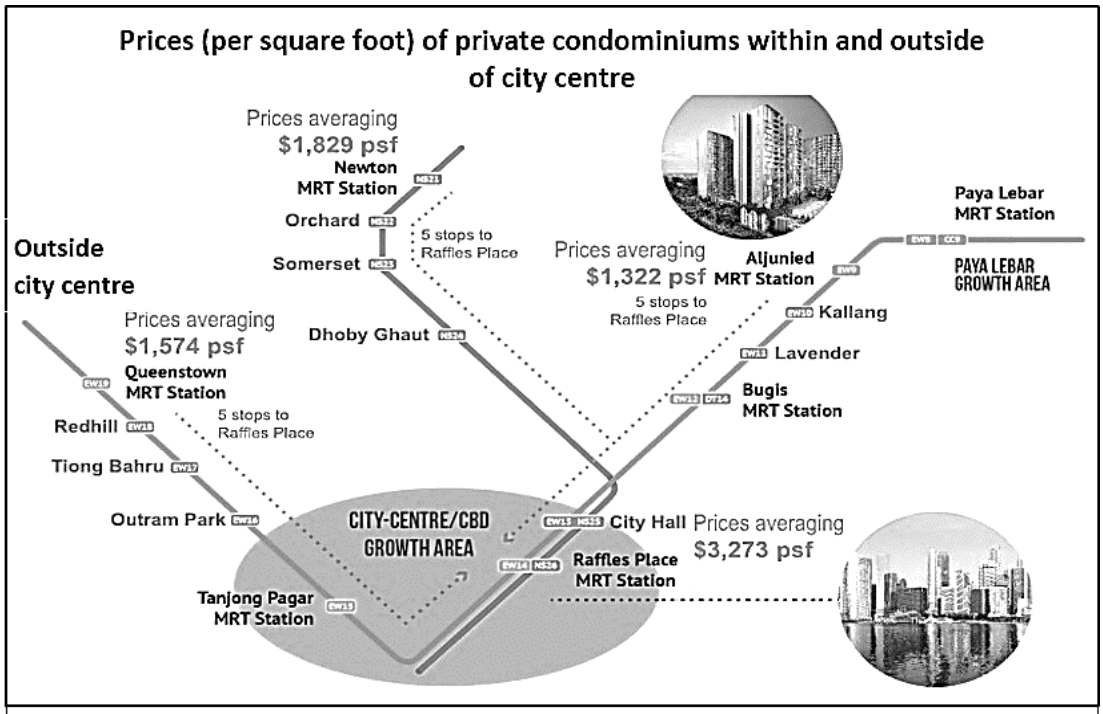
2 Fig. 2 shows how property prices change with increasing distance from the city centre in Singapore.



Source: https://www.edgeprop.sg/property-news/good-value-city-fringe-living

Fig. 2

(a) Describe two characteristics of a city centre. [2]

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(b) Using Fig. 2, describe the relationship between property prices and the distance from the city centre. [2]

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3 Fig. 3 shows an example of integrated land-use planning in an HDB Town in Singapore.

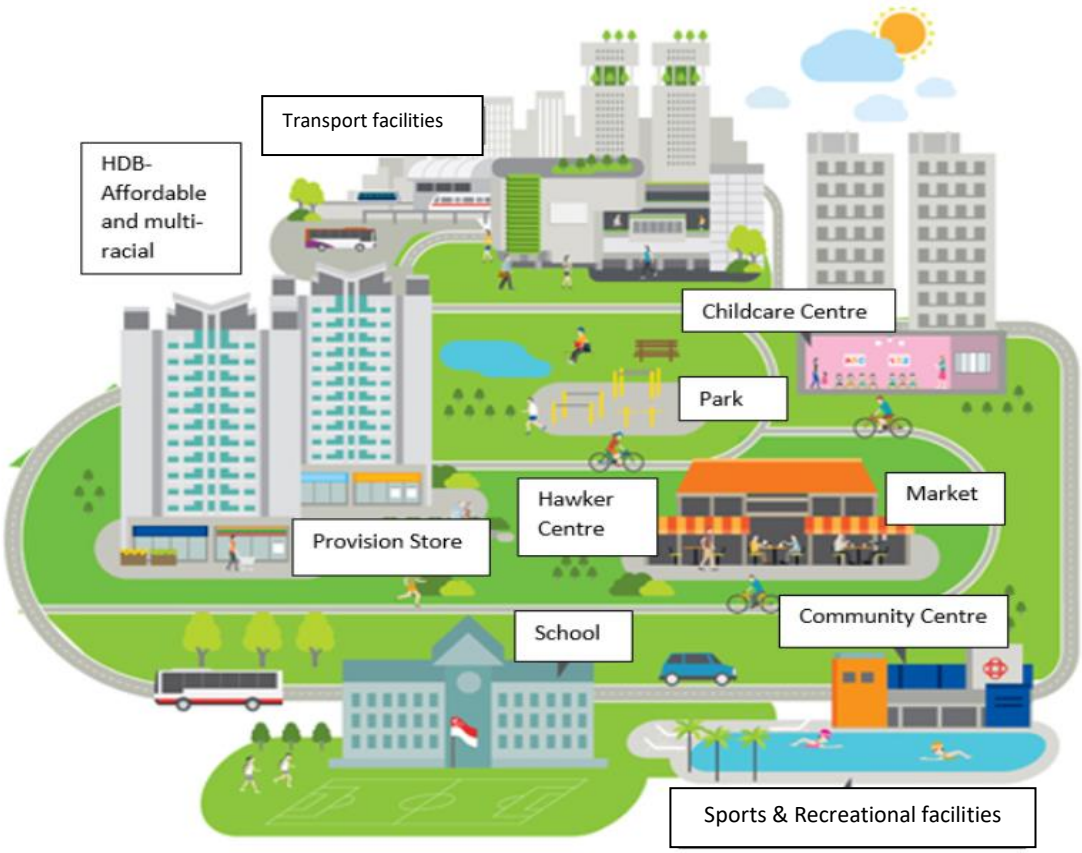

Fig. 3

(a) Using Fig. 3, describe two examples of amenities and facilities offered in this integrated HDB town.
[2]

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(b) Using examples, describe two ways how HDB towns cater to people of all ages and physical conditions. [4]

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4 Fig. 4 shows a transport infrastructure in the city of Bangkok, Thailand.

Fig. 4

(a) Using Fig. 4, identify three evidences of a good quality transport infrastructure in the city of Bangkok. [3]

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(b) Explain two reasons why transport systems are important in the cities. [4]

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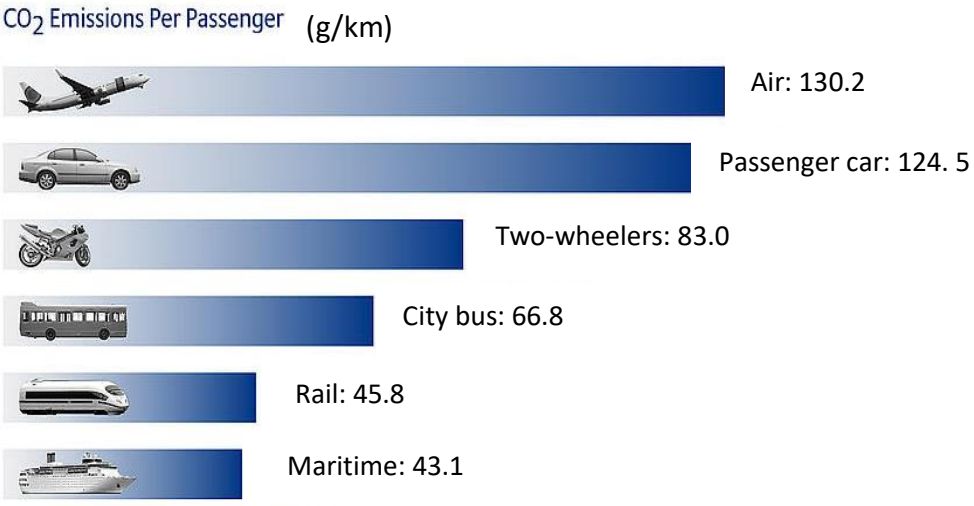

Fig. 5

(a) Using Fig. 5, describe the amount of global carbon dioxide emissions of transportation. [2]

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(b) Explain how a traffic congestion can contribute to increased carbon footprint. [2]

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(c) Explain two health risks of transport systems on people. [4]

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(a) Using Fig. 6, describe the congestion pricing in Stockholm. [2]

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(b) Explain how congestion pricing can help to reduce road congestion. [3]

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Section B: Response to Geographical Issue [10 marks]

7 Study the article below and answer the questions that follow.

The world's worst traffic: can Jakarta find an alternative to the car?

Jakarta was named the world city with the worst traffic in 2016 based on satellite navigation data, which found the average driver starting and stopping more than 33,000 times in a year. An estimated 70% of the city's air pollution comes from vehicles and the rate of traffic accidents has increased over the years.

Efforts to reduce car use are limited to an odd/even scheme on the main highway and a few other key routes during rush hour: vehicles with odd numbered plates are allowed on odd dates, with even plates on even dates.

Another key solution is the use of motorbikes.

"Motorbikes are twice the speed of a car in Jakarta, they use a 10th of the fuel, are a 10th of the cost and use far less space," says Nadiem Makarim, founder and chief executive of Go-Jek, the city's two-wheeled version of Uber. "Motorbikes are much more efficient. There's no reason for cars to exist in this city at all."

A long-awaited railway link from the airport is set to start operating in 2017 and the first phase of a light railway system is due to open in 2018, in time for the Asian Games. The new network should boost rail capacity from 800,000 to 1.2 million passengers a day.

Fig. 7

(a) Identify two travel alternatives to reduce car use in Jakarta. [2]

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(b) Evaluate the successes and limitations of the strategy to reduce traffic congestion in Jakarta. [4]

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(c) Discuss with examples, two possible measures to reduce the risk of traffic accidents in Jakarta. [4]

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End of Paper

Question 7, Fig. 7 Extracted from: https://www.theguardian.com/cities/2016/nov/23/world-worst-traffic-jakarta-alternative

PASIR RIS CREST SECONDARY SCHOOL
End-of-Year Examination 2022
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CANDIDATE NAME	**ANSWER SHEET**

CLASS ____ / ____ INDEX NUMBER ____ ____

GEOGRAPHY

12 October 2022

1 hour 30 minutes

Section A: Structured Questions [35 marks]

1 Fig. 1 shows an informal housing settlement in Tondo, in the city of Manila in the Philippines.

(a) On Fig. 1, annotate three features of an informal housing settlement. [3]

Fig. 1

***ANY 3 - 1M EACH (EXP STUDENTS MUST BE ABLE TO SHOW ANNOTATION BY USING DESCRIPTIVE WORDS on features of housing - e.g. POOR QUALITY/LACK OF/POORLY BUILT/ILLEGAL/SELF-BUILT/IMPROPER SANITATION)**

(b) Describe one social and one environmental threat people living in Tondo may face.
[2]

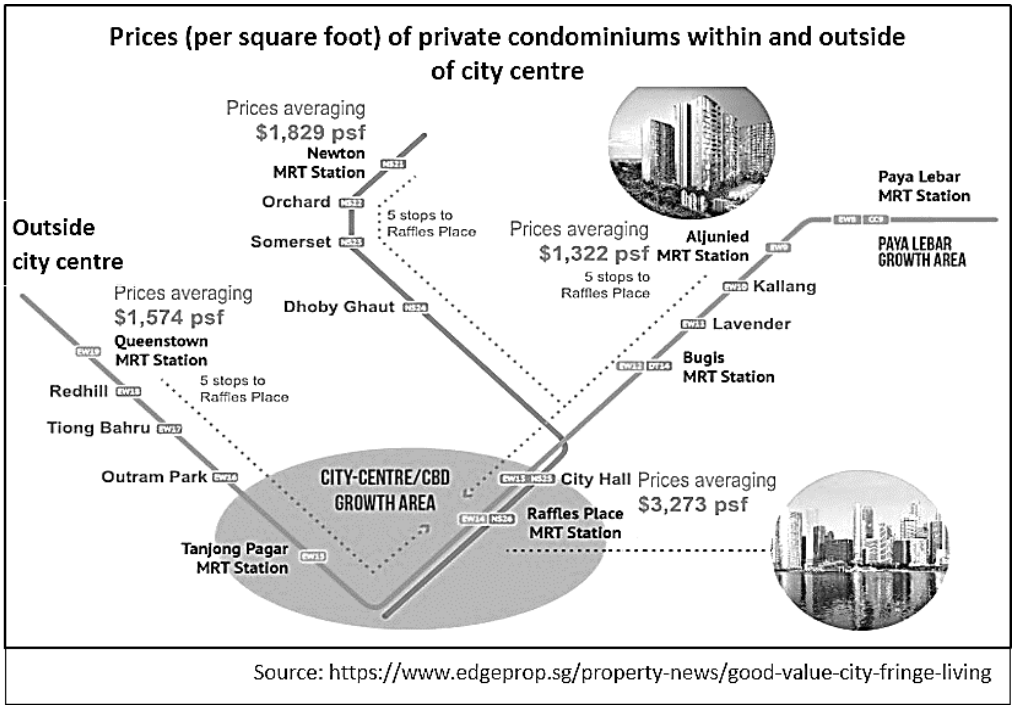
- **Environmental threat: People living in Tondo may face the risk of river flooding and the likely loss of homes / injuries / loss of lives [OR]**
- **Environmental threat: People living in Tondo may face water / land / air pollution due to the lack of proper sanitation / lack of waste disposal facilities**

- **Social threat: People living in Tondo may face the risk of a fire outbreak due to cramp living conditions and the likely loss of homes / injuries / loss of lives [OR]**

- **Social threat: People living in Tondo may face health risks and contract infectious diseases due to cramp/overcrowding/poor living conditions**

Any of the above 1 social and 1 environmental threat
[Max 1: if lack elaboration / clarity for each threat discussed]

2 Fig. 2 shows how property prices change with increasing distance from the city centre in Singapore.



Source: https://www.edgeprop.sg/property-news/good-value-city-fringe-living

Fig. 2

(a) Describe two characteristics of a city centre. [2]

- **High density buildings / High-rise buildings / Skyscrapers built in city centre**
- **Available and accessible transportation system and networks with multiple train lines / interchanges found in city centre**
- **High population density**
- **A range of functions (ie. administrative, commercial, industrial, education) can be found in city centre**

[Describe any of the above 2 characteristics]

(b) Using Fig. 2, describe the relationship between property prices and the distance from the city centre.
[2]

- **Property prices are lower with distance away from the city centre [1]**
- **Cite evidence using Fig 2, for example, City Hall's prices averaging at $3,273 psf while Queenstown's prices averaging at $1,574 psf / Newton's prices averaging at $1,829 psf. [1]**

(Max [1]: without evidence from Fig. 2)

3 Fig. 3 shows an example of integrated land-use planning in an HDB Town in Singapore.

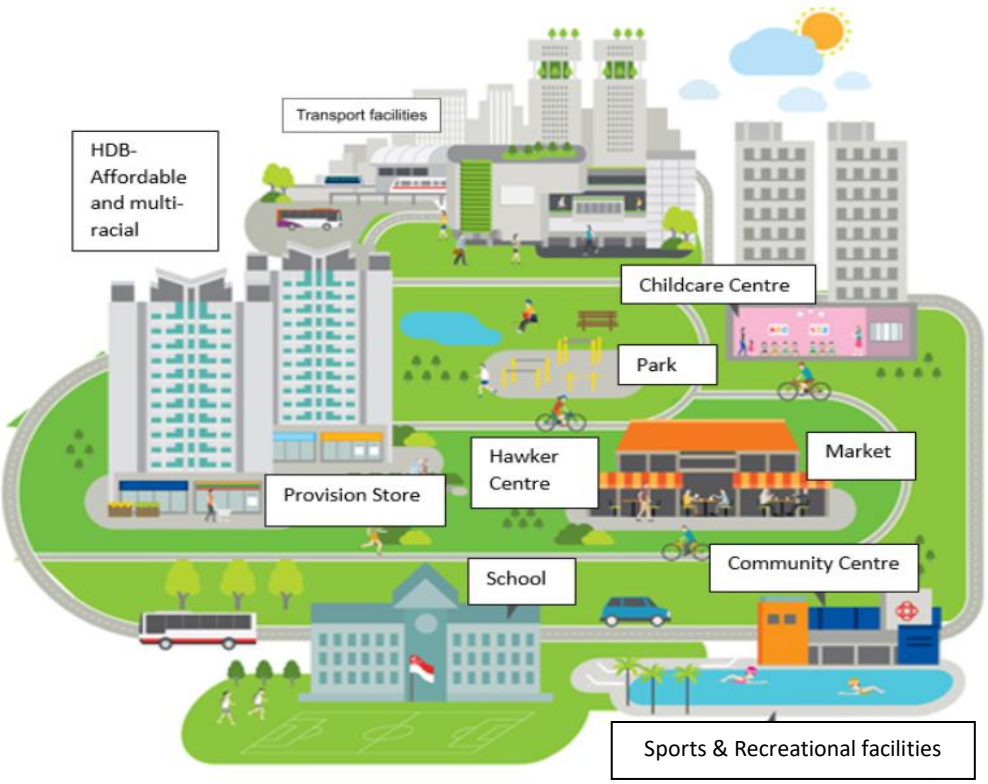


Fig. 3

(a) Using Fig. 3, describe two examples of amenities and facilities offered in this integrated HDB town. [2]

- **<u>Transportation facilities</u> such as the MRT and a bus interchange for travel [1]**
- **<u>Amenities</u> such as a childcare centre for young children / market and hawker centre for food / school for education / provision store for household items / community centre for social gathering and activities / sports and recreational facilities for recreational activities [1]**
- **<u>Amenities</u> such as parks and greenery for outdoor recreation / relaxation [1]**

[max 2: if just lifted answers directly from Fig. 3]

(b) Using examples, describe two ways how HDB towns cater to people of all ages and physical conditions. [4]

- **Affordable and multi-racial HDB [1] to enable families to afford and stay in HDB flats and to ensure no racial enclaves are developed. [1] OR**
- **Nearby provision store, hawker centre and market [1] to enable people to purchase food easily [1] OR**
- **School [1] for families to send their children for education [1] OR**
- **Childcare centre to enable working parents [1] to send their children for childcare [1] OR**

- **Transport facilities [1], roads to allow people to travel from one place to another easily [1]/**
- **Park and greenery [1] for outdoor relaxation [1]/**
- **Community centre or sports and recreational facilities [1] for social gathering and recreational activities [1] /**

****Any of 2 the above answers. Answers must show how it caters USING E.G. ACCEPT PLAUSIBLE ANSWERS.**

4 Fig. 4 shows a transport infrastructure in the city of Bangkok, Thailand.

Fig. 4

(a) Using Fig. 4, identify three evidences of a good quality transport infrastructure in the city of Bangkok. [3]

- **Roads**
- **Railways**
- **Walkways**
- **Bridges**

Accept any 3 points. Each point carries 1 mark.

(b) Explain two reasons why transport systems are important in the cities. [4]

- **They are important in the cities to facilitate the movement of people. [1] This enables people to commute to work because the employment opportunities are mostly concentrated in the cities while housing is found further away. [1] / It provides access to social activities and amenities that will improve people's social and emotional well-being. [1]**
- **They are important in the cities to facilitate the movement of goods and services. [1] It allows for the delivery of goods from where they are produced to where they are consumed. [1]**

5 Fig. 5 shows the amount of global carbon dioxide emissions of transportation.

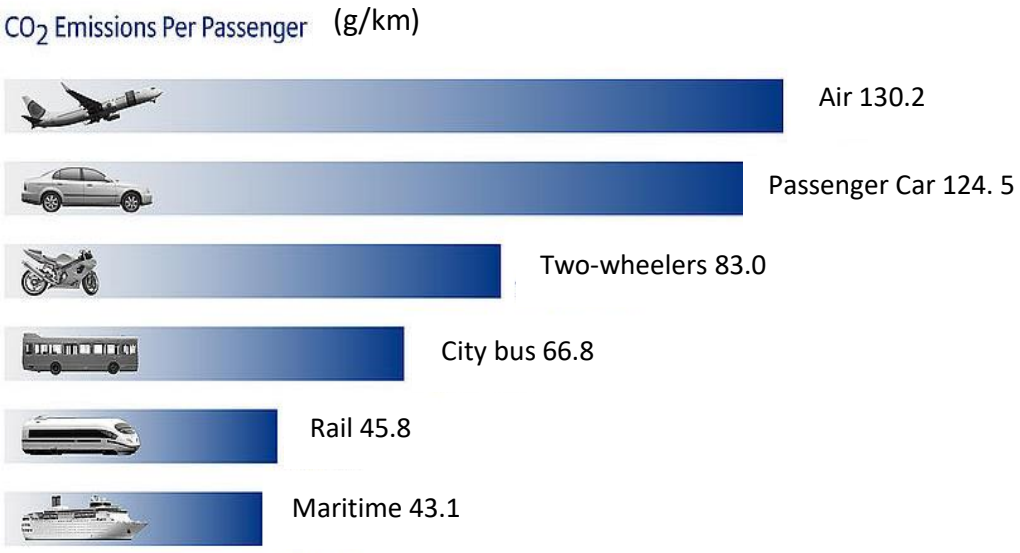


Fig. 5

(a) Using Fig. 5, describe the amount of global carbon dioxide emissions of transportation. [2]

- **The highest amount of global carbon dioxide emissions of transportation is air at 130.2g/km per passenger while [1]**
- **The lowest global carbon dioxide emissions of transportation is maritime at 43.1g/km per passenger. [1]**

(b) Explain how a traffic congestion can contribute to increased carbon footprint. [2]

- **During a traffic congestion, the vehicles remain stationary or would constantly start and stop. [1] Therefore, more fuel is burnt and wasted which leads to higher carbon dioxide emissions and carbon footprint. [1]**

(c) Explain two health risks of transport systems on people. [4]

- **Transport systems can pose a health risk because when fuel is burnt to power transport modes, harmful air pollutants and particulate matter are released. [1] The smog and air pollution can cause respiratory problems such as breathing difficulty, asthma, eye irritation, lung infection and risk of lung cancer. [1]**
- **Transport systems can pose a health risk because the traffic can produce a high noise level. [1] The exposure to road and traffic noise levels can disturb sleep, reduce work performance, provoke annoyance, cause mental stress, result in hearing impairment, and even trigger heart related illnesses. [1]**

6 Fig. 6 shows the congestion pricing in Stockholm, the capital of Sweden.

Fig. 6

(a) Using Fig. 6, describe the congestion pricing in Stockholm. [2]

- **The peak hours and price is $2.76 at 7.30- 8.29am, and 4.00- 5.29pm. [1]**
- **The off-peak hours and price is $1.38 at 6.30-6.59am, 9am-3.29pm and 6-6.29 pm. [1]**

(b) Explain how congestion pricing can help to reduce road congestion. [3]

- **Drivers are charged a premium when they use certain roads during specific time periods. [1]/**
- **This makes driving more expensive as compared to using public transport. [1]**

Therefore, it reduces the number of cars on the road during peak periods hence reducing road congestion. [1]

Section B: Response to Geographical Issue [10 marks]

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A long-awaited railway link from the airport is set to start operating in 2017 and the first phase of a light railway system is due to open in 2018, in time for the Asian Games. The new network should boost rail capacity from 800,000 to 1.2 million passengers a day.

(a) Identify two travel alternatives to reduce car use in Jakarta. [2]

- **One travel alternative to reduce car use is to use motorbikes for travelling within the city. [1]**
- **Another travel alternative is to use the railway for travelling around the city. [1]**

(b) Evaluate the successes and limitations of the strategy to reduce traffic congestion in Jakarta.

Successes: [4]

- **The railway link can accommodate a higher passenger volume of about 80000 to 1.2 million passengers daily. [1]**
- **The motorbikes move at a speed twice that of a car and is able to manoeuvre around traffic and smaller roads. / The railway link is faster than cars as it does not have to face congestion and traffic stops along the roads. [1]**
- **The risk of accidents in a railway link is lesser because there are no obstructions along the railway link. [1]**

Limitations:

- **The railway link infrastructure may be costly to build especially for a growing economy such as Jakarta. [1]**

- **The use of a railway link may increase safety risks to commuters as it may be a target for terrorism and crimes such as outrage of modesty and pickpocketing. [1]**

Accept any other logical factors.

(c) Discuss with examples, two possible measures to reduce the risk of traffic accidents in Jakarta. [4]

- **To reduce the risk of traffic accidents they can raise awareness and educate all users by holding road safety campaigns [1] such as the posters that are placed along the roads by the Singapore Road Safety Council to encourage users to practice good safety habits. [1]**
- **To reduce the risk of accidents, they can install more barrier free transport facilities with special features for the aged and disabled. [1] One example is the green man scheme that was implemented in Singapore to give the elderly 13 seconds more time when crossing the road. [1]**