

Name: _____ () Class: _____



Christ Church Secondary School
2022 End-of-Year Examination
Geography Secondary 2 Express

Date : 27 September 2022
Duration : 1 hour 15 minutes
Marks : 35

INSTRUCTIONS TO CANDIDATES

- 1 **DO NOT TURN THIS PAGE OVER UNTIL YOU ARE TOLD TO DO SO.**
- 2 Write your name, class register number and class in the spaces at the top of this page.
- 3 Answer **ALL** questions in the space provided.
- 4 The number of marks is given in brackets [] at the end of each question or part question.

SECTION A: Map Reading [5 marks]

There is one question on topographical mapwork.
Answer **all** parts of the question.

SECTION B: Fieldwork Techniques [10 marks]

There is one question on fieldwork techniques.
Answer **all** parts of the question.

SECTION C: Structured Questions [20 marks]

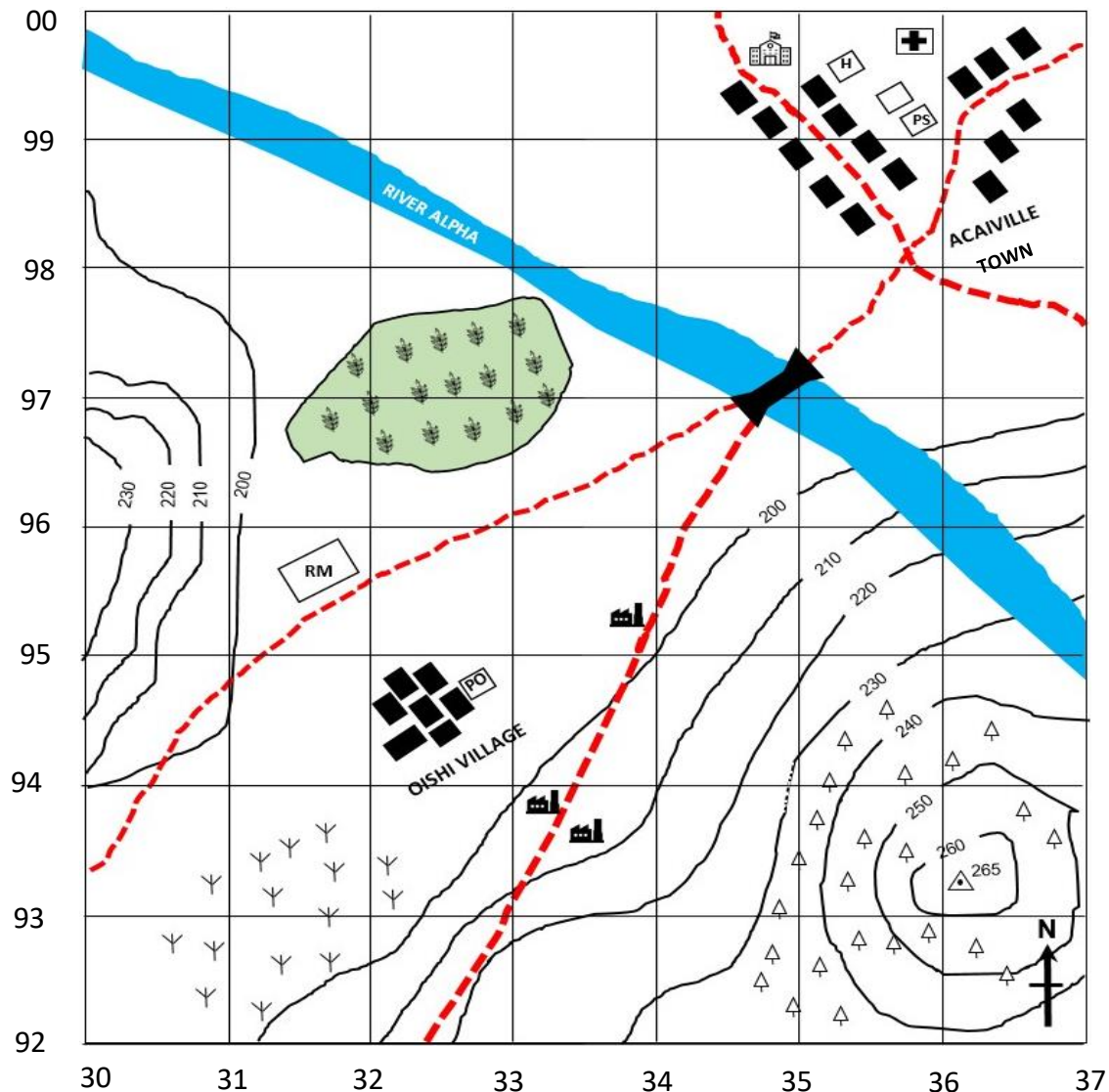
There is one question on Housing Shortage and one question on Transport.
Answer **all** parts of the question.

FOR EXAMINER'S USE ONLY	
Section A	/5
Section B	/10
Section C	/20
Total	/35

Section A (5 marks)
Map Reading Skills

- 1 Study Fig. 1, which shows a topographical map of Hoolawoola and answer questions 1(a) to 1(c).

Topographical Map of Hoolawoola



Legend

	Paved Road		Settlement		School		Bridge
	Contours (metres)		Public buildings		Rubber tree		Hotel
	Trigonometric station		Forest		Rice field		Post Office
	Rice mill		Factory		Hospital		Police Station

Scale: 1cm represents 2km

Fig. 1

- (a)** State the four-figure grid reference of the Hospital.

_____ [1]

- (b)** Calculate the straight-line distance of the Post Office to the School in kilometres. Show your workings clearly.

_____ [2]

- (c)** With the help of Fig. 1, suggest a reason why people living in Oishi Village would want to move to Acaiville Town.

_____ [2]

Section B (10 marks)
Fieldwork Techniques

- 2 A group of Secondary Two Christ Church Secondary School students wanted to find out what makes Woodlands an inclusive neighbourhood for its residents. They crafted the following hypothesis:

The more the variety of transport services available, the higher the sense of belonging residents have for the neighbourhood.

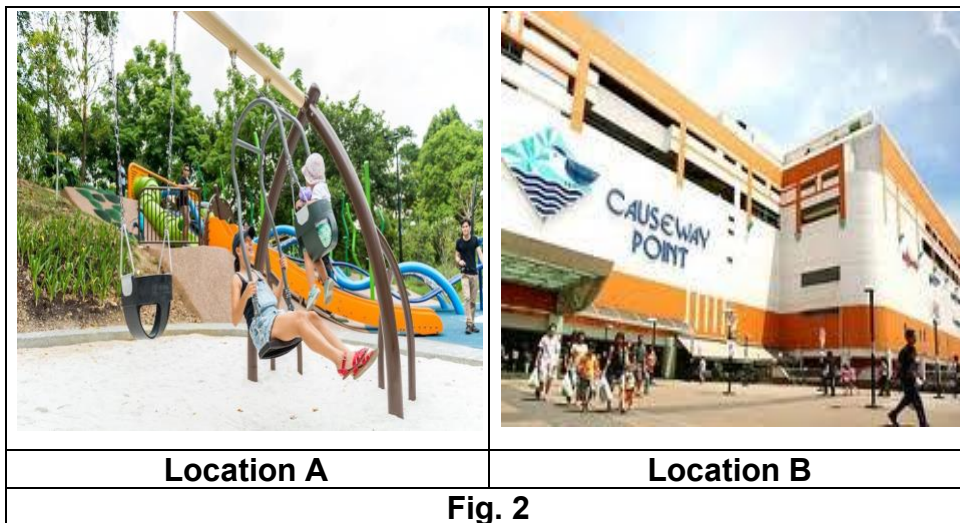
The students plan to interview 30 respondents between the ages of 10 to 60 years old to test their hypothesis.

- (a) Identify the two variables presented in the hypothesis above.

Variable 1: _____ [1]

Variable 2: _____ [1]

- (b) The students are considering one of the two locations below to conduct their interview.



Using Fig. 2, identify the more suitable location where the students can conduct their interview. Suggest a reason for your answer.

[2]

- (c)** Describe any three considerations the students must make when crafting their questionnaire survey.

[3]

- (d)** Identify one sampling method which the students can use for their investigation and describe how it can be conducted.

[3]

Section C (20 marks)
Structured Questions

- 3** Study Fig. 3, which shows a city in India.

City in India



Fig. 3

- (a)** With reference to Fig. 3, identify and explain one challenge of living in a city.

[3]

- (b)** Describe one opportunity for people living in a city.

[3]

- (c) Due to housing shortage, many poor people in cities of developing countries resort to living in informal housing.

Informal Housing in Nairobi, Kenya



Fig. 4

With reference to Fig. 4, describe one feature of informal housing.

[2]

- 4 Study Fig. 5, which shows the number of train delays lasting more than 30 minutes in Singapore from 2015 to 2021.

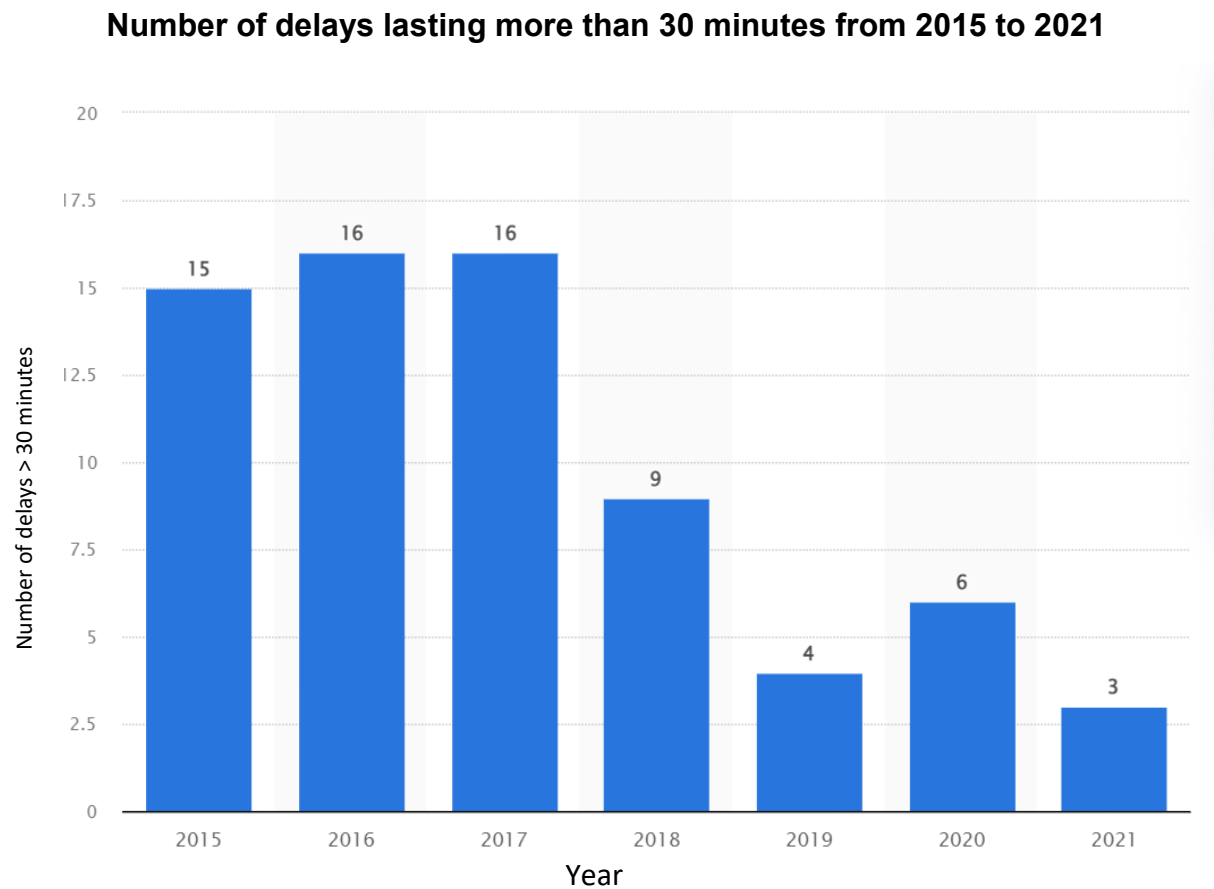


Fig. 5

With reference to Fig. 5, describe the trend in the number of train delays lasting more than 30 minutes in Singapore from 2015 to 2021.

[3]

- 5 Study Fig. 6, which shows the percentage of households without toilets in formal settlements in parts of India.

Percentage of households in formal settlements without toilets in parts of India

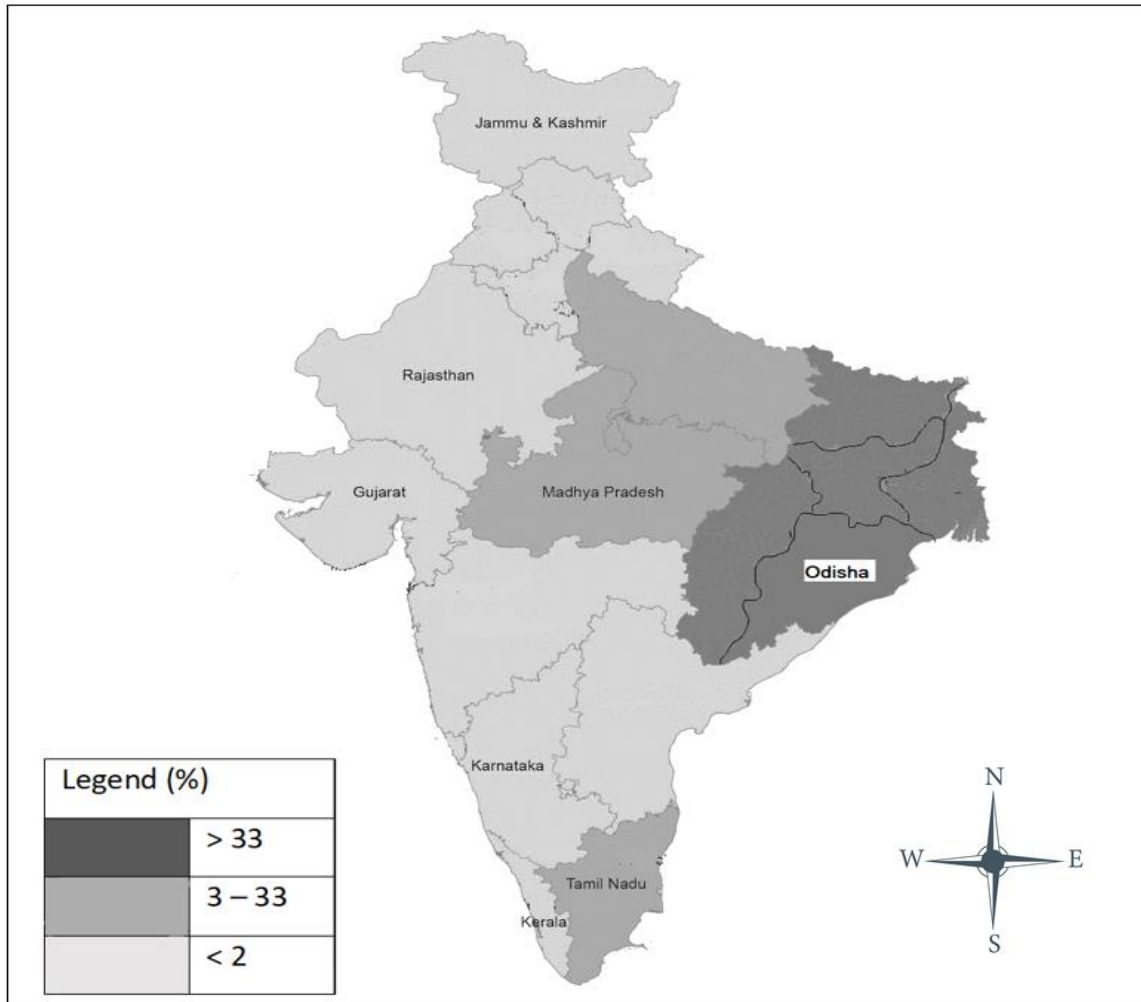


Fig. 6

With reference to Fig. 6, describe the distribution of households without toilets in India.

[3]

“Health risks is the only impact transport systems have on the people living in cities.”

[illegible]

[illegible]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[6]

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Name: _____ () Class: _____



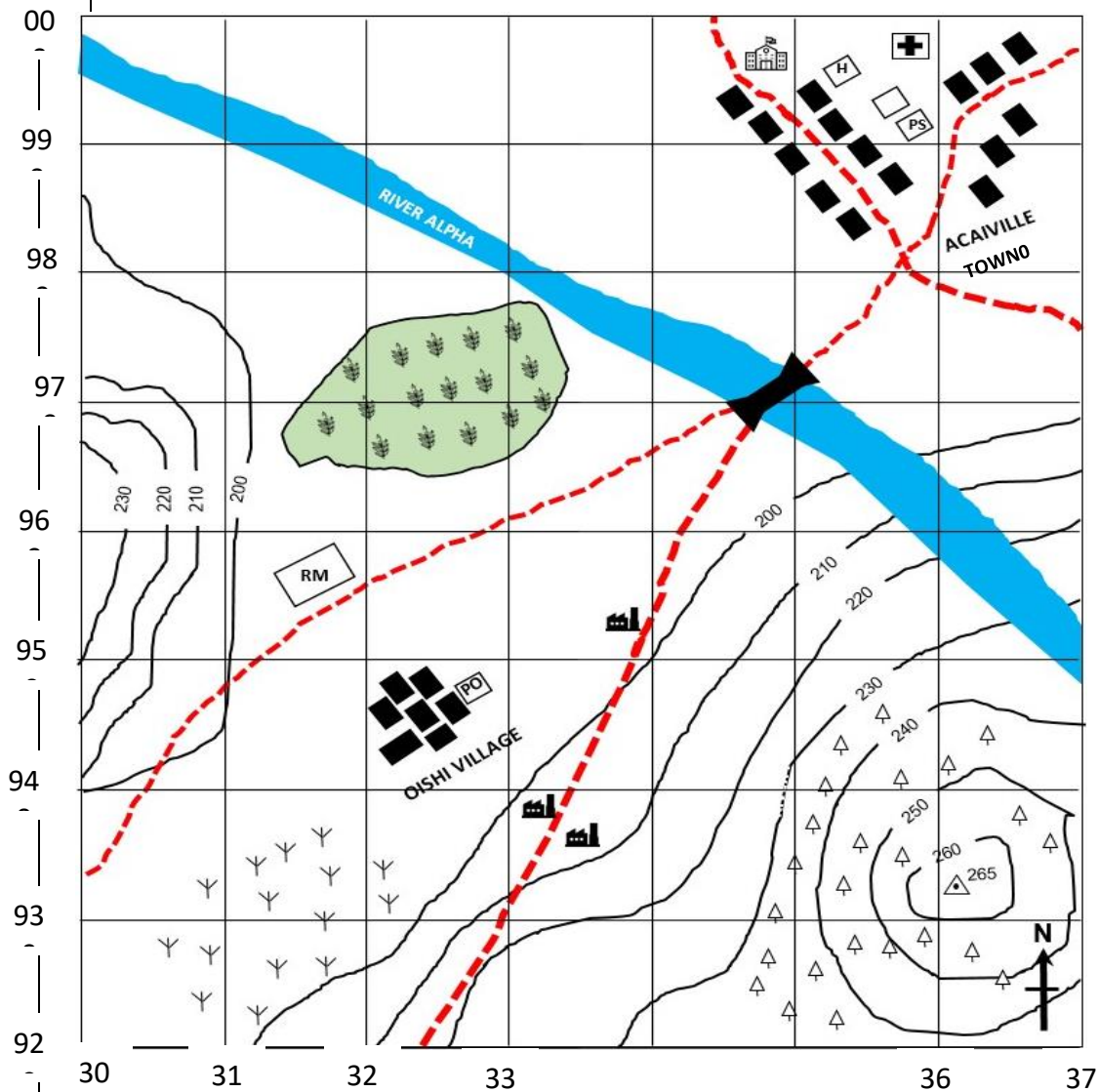
Christ Church Secondary School
2022 End-of-Year Examination
Geography Secondary 2 Express

ANSWER SCHEME

Section A (5 marks)
Map Reading Skills

1 Study Fig. 1, which shows a topographical map of Hoolawoola and answer questions 1(a) to 1(c).

Topographical Map of Hoolawoola





Legend

	Paved Road		Settlement		School		Bridge
	Contours (metres)		Public buildings		Rubber tree		Hotel
	Trigonometrical station		Forest		Rice field		Post Office
	Rice mill		Factory		Hospital		Police Station

Fig. 1

	Scale: 1cm represents 2km	
	(a) State the four-figure grid reference of the Hospital.	
	3599	[1]
	(b) Calculate the straight-line distance of the Post Office to the School in kilometres. Show your workings clearly. 1cm – 2km On ruler: 9.4cm (accept 9.3cm to 9.5cm) Actual distance: $9.4 \times 2 = 18.8\text{km}$ (accept 18.6km to 19km) Award 1m for showing understanding of ruler measurement. Award 1m for final answer.	[2]
	(c) With the help of Fig. 1, suggest a reason why people living in Oishi Village would want to move to Acaiville Town. There are more facilities and amenities in Acaiville Town Eg. Hospital / Hotel / School (Evidence) They move there for better education opportunities Eg. School (Evidence) There is better safety Eg. Police station (Evidence) Accept: Presence of hospital in Acaiville [1] hence people can receive better treatment [1] Acaiville is more convenient to live in [1] as it has a school to provide people with education / hospital for those who are ill [1] Accept but NOT ENCOURAGED**: There are factories near Oishi Village [1] so there is air pollution. The people want to move to Acaiville as there is less air pollution. [1] ** (Not encouraged to write about PUSH factor as it does not directly address why people want to move to Acaiville) Reserve 1m for reason. Reserve 1m for evidence. Accept any reasonable answers.	[2]

Section B (10 marks)
Fieldwork Techniques


2	<p>A group of Secondary Two Christ Church Secondary School students wanted to find out what makes Woodlands an inclusive neighbourhood for its residents. They crafted the following hypothesis:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><i>The more the variety of transport services available, the higher the sense of belonging residents have for the neighbourhood.</i></p> </div> <p>The students plan to interview 30 respondents between the ages of 10 to 60 years old to test their hypothesis.</p>	
	<p>(a) Identify the two variables presented in the hypothesis above.</p>	
	<p>Variable 1: residents' sense of belonging Variable 2: variety of transport services</p>	<p>[1] [1]</p>
	<p>(b) The students are considering one of the two locations below to conduct their interview.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Location A</p> </div> <div style="text-align: center;">  <p>Location B</p> </div> </div> <p style="text-align: center;">Fig. 2</p> <p>Using Fig. 2, identify the more suitable location where the students can conduct their interview. Suggest a reason for your answer.</p> <p>Identify: Location B</p> <p>Reason: Higher human traffic / wider range of profile and age group at Location B / Greater variety of transport services available/ transport services available hence respondents are</p>	<p>[1]</p>


	<p>likely to be commuters / there is a <u>higher concentration of activities</u> at location B so there will be <u>more people</u>.</p> <p>Accept other reasonable answers.</p> <p>Accept: Location B because it has a wider range of people from different age groups compared to A which is a playground catering to children.</p>	[1]
(c)	<p>Describe any three considerations the students must make when crafting their questionnaire survey.</p> <ul style="list-style-type: none"> - Length – keep to 10 or fewer questions - Layout – have a good mix of open-ended and close-ended questions - Language – use simple and clear language - Validity – Ensure questions asked are useful in helping students find out about the hypothesis - Avoid questions which require a lot of thinking - Avoid questions which can cause offense or misunderstanding <p>Any three of the above.</p> <p>Also accept (NOT encouraged) - Craft strategic questions on their age /neighbourhood they live in</p> <p>*Question is asking about crafting questions. Selection of respondents != crafting of questions.</p> <p>X they should include respondents ages 10 to 60 X students must tell respondents why they are doing the survey X they should conduct their survey in a crowded place X how long they have lived in woodlands (not essential to answering the hypothesis) X type of sampling used X type of graphs and data generated X type of transport services they use (too specific to be a general consideration)</p>	[3]

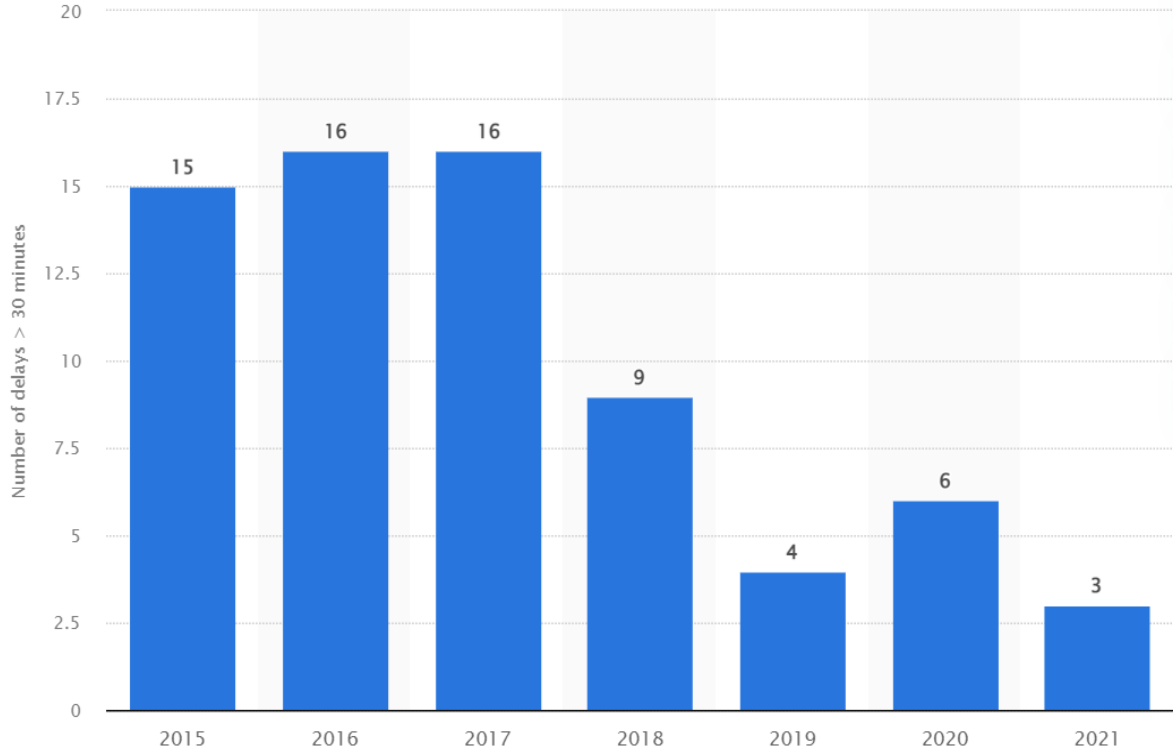
	<p>(d) Identify one sampling method which the students can use for their investigation and describe how it can be conducted.</p> <ul style="list-style-type: none"> - Convenience sampling - Select members of a population because they are conveniently available - Approach the nearest passers-by to answer the questionnaire <p>OR</p> <ul style="list-style-type: none"> - Simple (random) sampling - Assign numbers to members of a population - Use a random number generator to choose from those numbers to do the survey <p>or</p> <ul style="list-style-type: none"> - use a number generator to select respondents randomly - from a sample pool of 30 people <p>OR</p> <ul style="list-style-type: none"> - Systematic sampling - Select members at regular intervals - using the number generator to determine the interval - For example, every Nth person (i.e. 5th, 10th, 15th, 20th etc.) passing by answers the questionnaire <p>X randomly choosing people who walk past to survey on is NOT random sampling. It's convenience sampling. X for systematic sampling, choose every 5th person (how is this number determined?)</p> <p>Award marks for any one set of sampling. Reserve 1m for identification of sampling type. Reserve 1m for defining the sampling method. Reserve 1m for describing how it can be carried out.</p>	<p>[3]</p>
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Section C (20 marks)

Structured Questions

3	<p>Study Fig. 3, which shows a city in India.</p> <p style="text-align: center;">City in India</p>  <p style="text-align: center;">Fig. 3</p>	
(a)	With reference to Fig. 3, identify and explain one challenge of living in a city.	
	<ul style="list-style-type: none"> - One challenge is air pollution / environmental pollution caused by burning of fossil fuels - Industries such as the one in Fig. 3 produce carbon emissions / producing smoke / large amounts of smoke emitted from factories - These substances are harmful to residents' health / post health risks such as asthma, respiratory problems to the people <p>Reserve 1m for explicit reference to Fig. 3 (eg. industries burning fossil fuels)</p>	[3]
(b)	<p>Describe one opportunity for people living in a city.</p> <p>Improved overall health</p> <ul style="list-style-type: none"> - Formal housing allows for access to proper sanitation - Such as clean toilets and potable water - This helps to reduce outbreak of diseases - People lead healthier lives <p>OR</p>	

	<p>Sense of place and belonging</p> <ul style="list-style-type: none"> - Formal housing caters to people's social needs - HDB provides spaces for social gatherings - Such as community centre programmes and playgrounds - These allow residents to make friends and foster closer bonds <p>OR</p> <p>Convenience to people's lives</p> <ul style="list-style-type: none"> - Amenities and desirable features are present in cities - Access to food and groceries is convenient - Medical services are easily available - This makes residents' lives easier / improves quality of life <p>OR</p> <ul style="list-style-type: none"> - There are better education prospects in the cities - because there is demand for higher education eg. university / more schools - When people have a higher education level, they are able to gain skills and knowledge to apply for jobs. - This helps them earn more money to afford a better life / support their family. <p>Award marks for any of the above 3 sets.</p> <p>Also accept 'Employment opportunities □ More high-paying jobs available □ they can earn more money to have better standard of living'</p>	[3]
	<p>(c) Due to housing shortage, many poor people in cities of developing countries resort to living in informal housing.</p> <p style="text-align: center;">Informal Housing in Nairobi, Kenya</p>  <p style="text-align: center;">Fig. 4</p>	

	<p>With reference to Fig. 4, describe one feature of informal housing.</p> <ul style="list-style-type: none">- Fig. 4 shows constructed from poor quality materials such as zinc sheets and wooden planks- Houses are at risk of collapsing / being flooded / catching fire easily <p>Reserve 1m for explicit reference to Fig. 4</p> <p>Accepted - <u>Lack of amenities such as clean water</u>, evidenced by the female carrying a bucket, likely retrieving water from a non-piped source.</p>	[2]																
4	<p>Study Fig. 5, which shows the number of train delays lasting more than 30 minutes in Singapore from 2015 to 2021.</p> <p>Number of delays lasting more than 30 minutes from 2015 to 2021</p>  <table><tr><th>Year</th><th>Number of delays > 30 minutes</th></tr><tr><td>2015</td><td>15</td></tr><tr><td>2016</td><td>16</td></tr><tr><td>2017</td><td>16</td></tr><tr><td>2018</td><td>9</td></tr><tr><td>2019</td><td>4</td></tr><tr><td>2020</td><td>6</td></tr><tr><td>2021</td><td>3</td></tr></table> <p>Fig. 5</p>	Year	Number of delays > 30 minutes	2015	15	2016	16	2017	16	2018	9	2019	4	2020	6	2021	3	
Year	Number of delays > 30 minutes																	
2015	15																	
2016	16																	
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2019	4																	
2020	6																	
2021	3																	
	<p>With reference to Fig. 5, describe the trend in the number of train delays lasting more than 30 minutes in Singapore from 2015 to 2021.</p>																	
	<p>General statement:</p> <ul style="list-style-type: none">- Overall, there is a decrease in the number of delays from 2015 to 2021 <p>Evidence:</p> <ul style="list-style-type: none">- From 15 in 2015 to 3 in 2021																	

	<p>Specific statement:</p> <ul style="list-style-type: none">- Sharp decrease from 2017 to 2019 <p>Evidence:</p> <ul style="list-style-type: none">- From 16 in 2017 to 4 in 2019 <p>Anomaly* (This is an anomaly more than a trend. Highlight to students that trends need to show a pattern over time):</p> <ul style="list-style-type: none">- There was an increase from 2019 to 2020 <p>Evidence:</p> <ul style="list-style-type: none">- From 4 in 2019 to 6 in 2020 <p>Also accepted S+E pair:</p> <p>Remained constant [statement] at 16 from 2016 to 2017 [Evidence].</p> <p>Accept other reasonable S+E pairs.</p> <p>Award 1m for S+E. Reserve 1m for General Statement without evidence. Do not accept answers that list year by year.</p>	[3]								
5	<p>Study Fig. 6, which shows the percentage of households without toilets in formal settlements in parts of India.</p> <p>Percentage of households in formal settlements without toilets in parts of India</p> <div><table><thead><tr><th colspan="2">Legend (%)</th></tr></thead><tbody><tr><td>Dark Grey</td><td>> 33</td></tr><tr><td>Medium Grey</td><td>3 – 33</td></tr><tr><td>Light Grey</td><td>< 2</td></tr></tbody></table></div>	Legend (%)		Dark Grey	> 33	Medium Grey	3 – 33	Light Grey	< 2	
Legend (%)										
Dark Grey	> 33									
Medium Grey	3 – 33									
Light Grey	< 2									

		Fig. 5													
		With reference to Fig. 6, describe the distribution of households without toilets in India.													
		<table><tr><td>General trend Statement</td><td>Most of the households without toilets are in the Eastern region of India.</td></tr><tr><td>Evidence</td><td>Odisha has more than 33% of households without toilets.</td></tr><tr><td>Specific trend Statement</td><td>There are also households in the Southern region of India without toilets.</td></tr><tr><td>Evidence</td><td>Tamil Nadu has 3 to 33% of households without toilets.</td></tr><tr><td>Specific trend Statement</td><td>Most of the households in the Northern and Western regions of India have toilets.</td></tr><tr><td>Evidence</td><td>Places like Gujarat and Jammu & Kashmir have less than 2% households without toilets.</td></tr></table>	General trend Statement	Most of the households without toilets are in the Eastern region of India.	Evidence	Odisha has more than 33% of households without toilets.	Specific trend Statement	There are also households in the Southern region of India without toilets.	Evidence	Tamil Nadu has 3 to 33% of households without toilets.	Specific trend Statement	Most of the households in the Northern and Western regions of India have toilets.	Evidence	Places like Gujarat and Jammu & Kashmir have less than 2% households without toilets.	
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Specific trend Statement	Most of the households in the Northern and Western regions of India have toilets.														
Evidence	Places like Gujarat and Jammu & Kashmir have less than 2% households without toilets.														
		Accept any other reasonable S+E pairs. Reserve 1m for general statement without evidence.													
		Also accept: General statement - Most parts of India have sufficient toilets. Evidence – More than half of India have less than 2% households without toilets.	[3]												
		X - Do not accept SE-Pairs without location, direction and place . (Name, NSEW, exact name of place)													
		X - Do not accept answers that talk about shading/colour of figure.													

6	<p>As the transport systems in cities become more complex, they bring about many impacts on the people.</p> <p>“Health risks is the only impact transport systems have on the people living in cities.”</p> <p>How far do you agree with this statement? Give examples to support your answer.</p> <table border="1" data-bbox="288 562 1366 752"> <tr> <td data-bbox="288 562 528 640">Give your stand</td><td data-bbox="528 562 1366 752"> <p>State to what extent you agree or disagree with the above statement:</p> <p>I disagree that health risks is the only impact transport systems have on the people living in cities.</p> </td></tr> </table> <table border="1" data-bbox="288 824 1366 1984"> <tr> <td data-bbox="288 824 528 1234"> <p>Given Factor</p> <p>‘Health risks’</p> </td><td data-bbox="528 824 1366 1234"> <p>Explain how transport systems in cities can bring about health risks to people:</p> <ul style="list-style-type: none"> - Carbon emissions from vehicles contribute to air pollution - When cars are stuck in traffic jams, the constant start-stop results in more harmful gases being produced - People breathe in the harmful gases and suffer from respiratory problems such as asthma. </td></tr> <tr> <td data-bbox="288 1234 528 1458"> <p>Example</p> </td><td data-bbox="528 1234 1366 1458"> <p>Provide a country-specific or place-specific example on how transport systems result in health risks in people:</p> <ul style="list-style-type: none"> - In the UK, nearly 5000 premature deaths happen due to vehicle emissions. </td></tr> <tr> <td data-bbox="288 1458 528 1570"> <p>Link</p> </td><td data-bbox="528 1458 1366 1570"> <p>Hence, people living in cities can suffer from health risks brought about by the transport systems.</p> </td></tr> <tr> <td data-bbox="288 1570 528 1984"> <p>Alternate Factor</p> </td><td data-bbox="528 1570 1366 1984"> <p>Explain one other impact of transport systems on people:</p> <p>Safety risks:</p> <ul style="list-style-type: none"> - Increased likelihood of car accidents when there are more cars on the road - Overcrowded public transport can encourage crimes such as theft and outrage of modesty - Terminals and interchanges can become the target of terrorist attacks </td></tr> </table>	Give your stand	<p>State to what extent you agree or disagree with the above statement:</p> <p>I disagree that health risks is the only impact transport systems have on the people living in cities.</p>	<p>Given Factor</p> <p>‘Health risks’</p>	<p>Explain how transport systems in cities can bring about health risks to people:</p> <ul style="list-style-type: none"> - Carbon emissions from vehicles contribute to air pollution - When cars are stuck in traffic jams, the constant start-stop results in more harmful gases being produced - People breathe in the harmful gases and suffer from respiratory problems such as asthma. 	<p>Example</p>	<p>Provide a country-specific or place-specific example on how transport systems result in health risks in people:</p> <ul style="list-style-type: none"> - In the UK, nearly 5000 premature deaths happen due to vehicle emissions. 	<p>Link</p>	<p>Hence, people living in cities can suffer from health risks brought about by the transport systems.</p>	<p>Alternate Factor</p>	<p>Explain one other impact of transport systems on people:</p> <p>Safety risks:</p> <ul style="list-style-type: none"> - Increased likelihood of car accidents when there are more cars on the road - Overcrowded public transport can encourage crimes such as theft and outrage of modesty - Terminals and interchanges can become the target of terrorist attacks
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<p>Link</p>	<p>Hence, people living in cities can suffer from health risks brought about by the transport systems.</p>										
<p>Alternate Factor</p>	<p>Explain one other impact of transport systems on people:</p> <p>Safety risks:</p> <ul style="list-style-type: none"> - Increased likelihood of car accidents when there are more cars on the road - Overcrowded public transport can encourage crimes such as theft and outrage of modesty - Terminals and interchanges can become the target of terrorist attacks 										

Example	<p>Provide a country-specific or place-specific example on how transport systems impact people in cities:</p> <p>In Japan, trains have female-only carriages to ensure the safety of female commuters due to the occurrence of crimes on trains.</p>
Link	Hence, safety risks is another impact transport systems have on people living in cities.

Also accept for alternative factor: Traffic congestion, improved mobility for elderly and persons with disabilities, positive impacts of transport systems (convenience due to more transport nodes)

Sec 2ENA Level Descriptors for OEQs

Level 1 (0–2 marks)	<ul style="list-style-type: none"> At this level answers will be generalised 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, limited to description of factors. Answer lack examples or other evidences, or it is so sketchy that it adds little support to the answer. No attempt to link reasoning and examples back to the question (ATQ) <p>Cap @ L1/2 for answers that do not have a PEEL on given factor</p>
Level 2 (3–4 marks)	<ul style="list-style-type: none"> Agreement or disagreement will be supported 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. Some examples (even logical but hypothetical ones) or other evidences will be presented to support the answers in at least one place in the answer. Some attempt to link reasoning and examples back to the question (ATQ) <p><i>Award up to 4m for 1 well-elaborated PEEL</i></p> <p><i>Awarded if students gave extensive examples of kinds of illness or gases produced</i></p>
Level 3 (5–6 marks)	<ul style="list-style-type: none"> At this level answers will be supported by sound knowledge.

		<ul style="list-style-type: none"> Both agreement and disagreement are considered and well supported. Reasoning is clear and logical with good expression of language. Examples or other evidences to support answers will be extensive and supported with details (location, date, some form of data or evidence/explanation of the situation happening). Reasoning and examples used answer the question (ATQ) <p><i>Award up to 5m for 1 well-elaborated PEEL</i> <i>Award up to 6m for 2 well-elaborated PEELs</i></p>	[6]

End of Paper

Acknowledgements

Fig. 2	https://www.timeout.com/singapore/things-to-do/guide-to-woodlands & https://thesmartlocal.com/reviews/singapore/shop/shopping-retail/malls/causeway-point/
Fig. 3	https://www.geospatialworld.net/blogs/most-polluted-cities-india/
Fig. 4	https://medium.com/world-food-programme-insight/hunger-and-desperation-in-nairobis-informal-settlements-b6bb823d6971
Fig. 5	https://www.statista.com/statistics/1007813/singapore-mass-rapid-transit-major-delays/
Fig. 6	https://www.maventechnologies.com.sg/traffico/stories/comparing-more-roads