Section A

Theme 4: Geographical Investigation

1 Chang Chun is an important industrial city in China with a focus on the automotive sector.

FAW-Volkswagen Automobile Co., Ltd. (FAW-VW) is a joint venture between FAW Group (a Chinese state-owned automotive manufacturing company) and Volkswagen (a German transnational corporation) which manufactures Volkswagen vehicles for sale in China.

A FAW-VW manufacturing plant is located in the residential area of Jincheng District in Chang Chun. Some of the residents are employees at the FAW-VW manufacturing plant.

A team of 5 students from a local university are interning with the Chang Chun City Authorities. They have been tasked with assessing the impacts of the FAW-VW manufacturing plant on the city.

The team was given a noise recorder and a laptop.

They also have access to secondary data in the form of:

- A map of of the Jincheng District where the FAW-VW manufacturing plant is located.
- An atmospheric pollution (PM10) map for Chang Chun City across 9 study sites.
- An excerpt of an interview with the Chief Executive Officer (CEO) of Volkswagen.

Resource 1 shows a map of the Jincheng District where the FAW-VW manufacturing plant is located. Resource 2 shows the features of the noise recorder. Resource 3 shows the atmospheric pollution (PM10) map for Chang Chun across 9 study sites (A – I). Resource 4 shows an excerpt of an interview between the CEO of Volkswagen, Herbert Deiss and a reporter for CNBC, a news media company.

(a) With reference to Resource 2, suggest possible issues that may affect accuracy while using the noise recorder to collect primary data on noise pollution caused by the FAW-VW manufacturing plant.

[4]

Indicative content

- Weak battery may result in weak sensor and/or microphone
- Microphone+Sensor is faulty
- Operator's breathing, conversation, movement is recorded by sensitive microphone especially because handheld
- Environmental sounds not related to industrial activity may be measured by sensitive microphone

Point-marked

(b) With reference to Resources 1 and 2, develop a plan to collect primary data to assess the levels of noise pollution caused by the FAW-VW manufacturing plant in the Jincheng District.

[7]

Indicative content

- Data needed would be noise recordings caused by FAW-VW manufacturing plant in the Jincheng District.

- Equipment needed would be the noise recorder and laptop.

- Noise recordings can be obtained around the the FAW-VW manufacturing plant to determine the average levels in the vicinity of the plant which would require
- Systematic sampling along the 4 roads that surround the FAW-VW site (Anshung, Chuan Ye, Dong Feng and *Anqing Road*)

- Noise recordings can be obtained with increasing distance from FAW-VW site to determine how noise levels change with distance from the FAW-VW site.
- Systematic sampling along the 3 parallel roads (Chuan Ye, Jin Cheng, Dong Feng) with measurements taken at set intervals 100m.

- Noise recordings can be obtained at different sites which constrast with the characteristics of the FAW-VW site to determine how noise levels change with different location types. Stratified sampling according to site characteristics e.g FAW-VW site vs Daishan Park vs Major intersection (Junction of Dongfeng and Feiyue) vs Residential areas (South of the plant, in the vicinity of Dong Feng Street).

- For accuracy at each sampling site, multiple measurements could be taken and averaged out for a more accurate measurements.

- Time should be allotted to allow transfer of data to the laptop after 5 measurements as well as for charging the noise recorder if the battery runs low to ensure the sensor is adequately powered to ensure accurate measurements.

- Ethical issues include ensuring businesses are not hampered by locating measurement sites away from customer flows. Simillarly, students should ensure they are not making noise near residential locations and disturbing residents.

- But if set intervals fall near businesses, the students should ask permission from businesses before taking measurements.

- Safety issues (traffic conditions, slippery and uneven pavements) could be addressed by being vigilant or electing a safety I/C.

Levels- marked

Level	Marks	Descriptors
3	6 – 7	Response shows good knowledge of data collection methods (including sampling), resource limitations, ethical issues, risks, data accuracy and reliability. Response reflects a good

		understanding of the given context of the investigation. Good use of resource.
2	3 – 5	Response shows some knowledge of data collection methods (including sampling), resource limitations, ethical issues, risks, data accuracy and reliability. Some parts of the response may be generic instead of being focused on the given context of the investigation. Some use of the resource.
1	1 – 2	Response shows little knowledge of data collection methods (including sampling), resource limitations, ethical issues, risks, data accuracy and reliability. Response may be of limited relevance to the given context of the investigation. Little use of the resource.
0	0	No creditworthy response.

(c) Explain why the data presentation technique shown in Resource 3 is appropriate to present the level of pollution in Chang Chun.

[5]

Indicative content

A map:

- shows the spatial distribution of the level of pollution.
- Using the map compass allows spatial analysis of the data by grouping study sites by location on the map (sub-regions) e.g all study sites in the south is above the average of all study sites with the exception of G.
- Using the distance scale allows spatial analysis of the data by drawing relationships with distance e.g pollution levels are increasing with increasing distance from Study site D in an eastward direction.
- Additional map data (e.g road density, airport) allows cross referencing to help account for pollution levels.
- Additional information e.g location of manufacturing plant allows comparisons to be made with locations near and further from the plant

Levels-marked

Level	**Marks**	**Descriptors**
3	5	Response shows good knowledge of the stregths of using maps to present levels of pollution. Response reflects a good understanding of the given context of the investigation. Good use of resource.
2	3 - 4	Response shows some knowledge of the stregths of using maps to present levels of pollution. Some parts of the response may be generic instead of being focused on the given context of the investigation. Some use of the resource.
1	1 – 2	Response shows littlew knowledge of the stregths of using maps to present levels of pollution.. Response may be of limited relevance to the given context of the investigation. Little use of the resource.

0	0	No creditworthy response.

(d) With reference to Resources 1, 3 and 4, evaluate the usefulness of secondary data in assessing the impacts of the FAW-VW manufacturing plant on Chang Chun.

[9]

Indicative content

Resources 1 ,3 and 4 are useful in assessing the impacts of the FAW-VW manufacturing but in different ways (Resource 1 for planning & collecting data while Resource 2 & 4 for actual environmental and economic impacts) and to different extents.

Resource 1 allows planning for appropriate sites (areas in the vicinity of the plant, Daishan Park) for noise recording to assess impacts. It also allows identification of possible stakeholders that may be impacted by the plant (Bank of Jilin , Fei Yue Road Post Branch, Changchun Express Logistics Company &
FAW Jiefang Car Limited Company) where interviews can be held with key personnel on the relationship of the various businesses with the FAW-VW manufacturing plant.

But beyond planning for the investigation, Resource 1 does not show actual impacts of the plant. A second map of the location before the plant would be useful to compare how the landuse has changed.

Resource 3 in contrast does show the possible impact that the plant has had on the environment in terms of atmospheric pollution (65 PM10 at Study Site C which is slightly above the average of the 9 sites – 64.3 PM10). This data is especially useful as it requires skills and equipment that the interns may not possess/ have access to.

But similar to the map, it only shows the current values and not the values before for a comparison to be made and the impact assessed. Also, the lack of information of the other study sites does not allow easy comparison of the values at different sites. For example, Study Site A,B,D,G and E have lower levels atmospheric pollution It would be useful to compare the landuse at these sites to with Site C to see if the presense of the VW plant may account for the higher levels of atmospheric pollution.

There is also issues of the accuracy and reliability of the measurements as little details of the process is explained.

Resource 4 shows possible environmental and economic impacts of the plant in terms of :

Atmospheric pollution of car emission for vehicles manufactured
- *There's a huge commitment towards electric cars and we are taking part of th*

Profits for local firms
- *VW is deeply localized, with most of the parts of our vehicles manufactured in China by local firms that we outsource to. I would say for our vehicles, the production chain is probably 95, 98 percent localized*

Training of the local labour force

- *Chinese workers who initially started with VW and other leading vehicle firms are now working with domestic firms and some have also started their own vehicle manufacturing firms.*

A large limitation of Resource 4 is that it is not specific to the FAW-VW manufacturing plant on Chang Chun. The information would need to be cross referenced with other data e.g carrying out research using company publications or interviews with key personnel at the FAW Jiefang Car Limited Company to determine if they are benefiting economically from the FAW-VW plant.

Levels-marked using the generic descriptors for H2 9m DRQ fron Theme 4

Section B

Theme 1: Tropical Environments

Karst of Ha Long Bay, Vietnam

2 Resource 5 is an article on the karst landscape of Ha Long Bay. Resource 6 is a photograph of Bo Hon Island, taken from the entrance of Bo Nau cave. Bo Hon Island is one of the islands in Ha Long Bay.

(a) With reference to Resource 5, describe the physical characteristics of Ha Long Bay. [4]

Indicative content

- Bay makes up of many islands with the largest being Cat Ba Island (16.4km by 17.3/19.1km).
- The entire bay is made up of sedimentary rocks with two major rock types—clastic and limestone.
    - Clastic rocks are predominantly found north of Dau Go at Bai Chay and Hong Gai, which is the mainland. Clastic rocks can also be found about 12km east of Cong Do.
    - The majority of the islands in Ha Long Bay are made up of limestone karst, stretching from the western parts of the bay around Vung Ba Cua till east of Cong Do and down south towards the Gulf of Tonkin where Dau Be is. Limestone karst also extends up north of Cong Do where it is connected to the mainland.
- The single largest coherent mass of rock is the Cat Ba limestone karst that makes up Cat Ba Island.
- Throughout the bay area, caves are only found in limestone karst—more specifically 'other limestone karst'.

Levels-marked

Level	Marks	Descriptors
2	3 – 4	Response describes key patterns present in the map. Good and accurate use of the resource throughout by quoting relevant sections of the map to present key patterns. Response is consistently clear and focused on the question.
1	1 – 2	Response mainly describes what is present in the map without highlighting patterns (In other words, only providing the points under the white bullet points above). Resource is used for some parts of the response. Response lacks clarity detail and focus on the question.
0	0	No creditworthy response.

(b) With the aid of a well-labelled sketch, describe the key features of the karst landscape shown in Resource 6.

[6]

Indicative content

Possible features to include in sketch:

- Mouth of cave
- Stalactite and stalagmites
- Tower karst and cone karst
- Karst plain covered by the sea

Levels-marked

Level	Marks	Descriptors
3	5 – 6	Accurate (must include the cone and tower karst) sketch that is labelled well. Labels must be correctly linked to the respective features. Description of key features of the karst landscape must be specific to the photo.
2	3 – 4	Sketch lacks accuracy at parts where some features are not accurately labelled. Gaps present in description of key features.
1	1 – 2	Inaccurate sketch where labels merely identify the karst landscape with minimal to no description of the key features.
0	0	No creditworthy response.

(c) Explain the processes that have contributed to the formation of the karst landscape shown in Resource 6.

[7]

Indicative content

1. Precipitation of calcium carbonate to form stalactites: icicle-shaped mineral deposits growing down from the ceiling of a cave

    - When water rich with calcium carbonate enters or moves through the cave system, the precipitation of calcium carbonate can occur in two ways:

        - Through the evaporation of water.

        - The diffusion of carbon dioxide from the water to the air when it comes into contact with air with less carbon dioxide. As CO_2 escapes from the water into the cave atmosphere, acidity of the water is decreased, causing calcium carbonate to precipitate.

    - Continued precipitation of calcium carbonate forms depositional features on the ceilings

2. Carbonation solution that occurred ever since the whole of Ha Long Bay was dry land.

- Cooler temperatures that were 5-10^{o}C lower than today during the cooler stages of the Pleistocene meant that water was locked into the icecaps of higher latitudes, and sea level declined by about 100 m—causing the whole of Ha Long Bay to be dry land.

- During then, carbonation solution occurred on the limestone basin of the Ha Long Bay area—forming solution and/or collapsed dolines.

- Cone karst landscape forms as dolines enlarge and coalesce, leaving conical residual hills with dolines on all sides.

- When continued deepening of the dolines causes the floor of the depressions to reach the water table, the cockpits are eventually widened faster than they are deepened. Continued lateral solution that is faster than vertical solution transforms cockpits into extensive plains that separate the residual hills. The lateral solution will also lead to the undercutting of the hills, steepening their sides.

- Sea level rise from warmer temperatures today covered the karstic plain leaving behind islands of tower and cone karsts.

Levels-marked

Level	Marks	Descriptors
3	6 – 7	Response demonstrates good knowledge and thorough explanation on at least 2 processes that have contributed to the formation of the karst landscape shown in Resource 6. Response is consistently clear, detailed, and focused on the question.
2	3 – 5	Response demonstrates some knowledge and explanation on the processes that have contributed to the formation of the karst landscape shown in Resource 6. Response may lack clarity, detail and focus on the question.
1	1 – 2	Response demonstrates limited knowledge and lacks details to explain the processes that have contributed to the formation of the karst landscape shown in Resource 6. Response lacks clarity, detail and focus on the question.
0	0	No creditworthy response.

(d) With reference to Resource 5, suggest how sea level rise may affect the karst landscape in Ha Long Bay.

[4]

Indicative content

- Resource 5 shows the presence of caves scattered throughout the bay. Rising sea level may submerge caves, such as the Bo Nau Cave in Resource 6, further promoting the development of the cave—enlarging cavities into caverns.

- Karst islands that are not as tall may become fully submerged, leading to a reduced amount of karst islands in Ha Long Bay as seen in Resource 5.

- More carbonation solution from seawater would take place throughout the karst islands scattered throughout the bay area as seen in Resource 5, such as at the foot of the tower and cone karst seen in Resource 6, causing cone karst to develop into tower karst, or the collapse of tower karsts within clusters may give rise to greater amounts of isolated tower karst forming.

Levels-marked

Level	Marks	Descriptors
2	3 – 4	Response is well explained and contextualised to the resource. Response is consistently clear and focused on the question.
1	1 – 2	Little to no use of the resource where points are not explained well. Response lacks clarity detail and focus on the question.
0	0	No creditworthy response.

(e) Suggest the processes that may have contributed to the formation of the rock types in Ha Long Bay as shown in Resource 5.

[4]

Indicative content

- Both clastic rocks and limestone are types of sedimentary rocks.
- Formation involves the weathering of pre-existing rock, transportation of the weathered material from the original site by the wind or by river, and deposition of the eroded material in the sea or in some other sedimentary environment.
- The deposited sediments then undergo lithification to become sedimentary rocks.
    - Lithification refers to the process that turns raw rock sediment into consolidated sedimentary rock. It can occur by way of:
        - Compaction as grains are squeezed together by the weight of overlying sediment and
        - Cementation of loose sediments as minerals precipitate around particles and bind them together.
        - The limestone rocks may be formed from a) either the fragments of other rocks (clasts) or from the break up and deposition of shells, coral and other marine organisms, or b) by direct precipitation of minerals from solution.

Point-marked

Theme 2: Development, Economy and Environment

Transnational Corporation (TNC) operations and impacts

3 Zara is a Spanish garment TNC based in Galicia, Spain. It is the world's largest apparel retailer. Zara has more than 2200 stores in 96 countries. It is renowned for its ability to develop a new product and get it to stores within 2 weeks compared to a 6 month industry average.

Resource 7 shows the distribution of Zara's suppliers by region from 2007 to 2012. Resource 8 shows Zara's production chain. Resource 9 is an article on labour issues in the garment industry.

(a) With reference to Resource 7, describe the distribution of Zara's suppliers from 2007 to 2012.

[4]

Indicative content

- 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.

Levels-marked

Level	Marks	Descriptor
2	3 – 4	Response highlights key patterns. Good and accurate use of the resource throughout by citing relevant figures from the resource. Response is consistently clear, detailed and focused on the question.
1	1 – 2	Response does not highlight any key pattern. Limited or no use of the resource. Response lacks clarity, detail and focus on the question.
0	0	No creditworthy response.

(b) Suggest reasons for the distribution of Zara's suppliers described in (a).

[5]

Indicative content

- The dominance of Zara's European suppliers up till 2011 is likely to be due to proximity to Zara HQ. This could mean that turnaround time would be faster for Zara to produce new products quickly and get them to the market just as quickly, which is what Zara is famous for.

- The subsequent shift to Asia could be cost related, since labour related costs are a comparative advantage. Productivity may not have increased in pace with

labour costs in Europe, making Asia a more attractive location for the labour-intensive garment industry.

- Africa and Americas could have continued to have a small share despite the low labour costs due to civil unrest or political instability which have contributed to higher risks for investments.

Levels-marked

Level	Marks	Descriptor
3	5	Response covers at least two relevant reasons. At least two patterns are explained. Reasons are well-explained. Good and accurate use of the resource throughout. Response is consistently clear, detailed and focused on the question.
2	3 – 4	Response covers at least at least two relevant reasons. At least two patterns are explained. Reasons may not be well-explained in some parts. Resource is used for some parts of the response. Response may lack clarity, detail and focus on the question at some parts.
1	1 – 2	Response covers only one reason or only one pattern is explained. Reason(s) are not well-explained. Limited or no use of the resource. Response lacks clarity, detail and focus on the question.
0	0	No creditworthy response.

(c) Using Resource 8, explain how information and communication (ICT) and transport technologies may facilitate Zara's global operations.

[6]

Indicative content

- 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 her 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 computerised 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.

Levels-marked

Level	Marks	Descriptor
3	5 – 6	Response covers both transport technologies and ICT. At least two stages of the production chan are covered. Role of transport technologies and ICT are well-explained. Good and accurate use of the resource throughout. Response is consistently clear, detailed and focused on the question.
2	3 – 4	Response covers both transport technologies and ICT. At least two stages of the production chan are covered. Role of transport technologies and ICT may not be well-explained in some parts. Resource is used for some parts of the response. Response may lack clarity, detail and focus on the question at some parts.
1	1 – 2	Response covers only either transport technologies or ICT; Or only one stage is covered. Role of transport technologies and/or ICT are not well-explained. Limited or no use of the resource. Response lacks clarity, detail and focus on the question.
0	0	No creditworthy response.

(d) With reference to Resources 8 and 9, explain the role of inter-firm networks in Zara's production chain.

[5]

Indicative content

- Suppliers help to provide raw materials for Zara (Resource 8)
- Subcontractors produce Zara's apparel since Zara does not manufacture any of its products on its own (Resources 8 and 9).
- Logistics firms are important in facilitating the movement of Zara's finished goods from production bases to Spain, Zara's home country (Resource 9).
- 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 (Resource 9).
- Local retailers can help Zara to sell its products to consumers in markets where there are barriers to entry for foreign-owned businesses.

Levels-marked

Level	Marks	Descriptor
3	5	Response covers at least two different types of inter-firm networks. Role of other firms are well-explained. Good and accurate use of both resources throughout. Response is consistently clear, detailed and focused on the question.
2	3 – 4	Response covers at least two different types of inter-firm networks. Role of other firms may not be well-explained in some parts. Resources are used for some

		parts of the response. Response may lack clarity, detail and focus on the question at some parts.
1	1 – 2	Response covers only one type of inter-firm networks. Role of other firms are not well-explained. Limited or no use of the resources. Response lacks clarity, detail and focus on the question.
0	0	No creditworthy response.

(e) With reference to Resource 9, explain how non-state actors could have helped to play a role in the protection of workers from TNCs like Zara.

[5]

Indicative content

- Watchdogs could have conducted checks on the working conditions in the factories.
- Watchdogs or media agencies could have raised awareness of the workers' plight following the factory closure on national or international platforms.
- Watchdogs could also launch a boycott campaign to apply pressure on the TNCs to provide compensation for the workers.
- Standards organisations could have encouraged TNCs to acquire certification for fair contract terms e.g. compensation in the event of factory closure.

Levels-marked

Level	Marks	Descriptor
3	5	Response covers at least two different groups of non-state actors. Role of non-state actors are well-explained. Good and accurate use of the resource throughout. Response is consistently clear, detailed and focused on the question.
2	3 – 4	Response covers at least two different groups of non-state actors. Role of non-state actors may not be well-explained in some parts. Resource is used for some parts of the response. Response may lack clarity, detail and focus on the question at some parts.
1	1 – 2	Response covers only one group of non-state actors. Role of non-state actors are not well-explained. Limited or no use of the resource. Response lacks clarity, detail and focus on the question.
0	0	No creditworthy response.

Theme 3: Sustainable Development

Measures of liveability and needs of the the elderly in India

4 Resource 10 shows an infographic on the elderly in the state of Maharashtra and Pune, a city in the Maharashtra state. Resource 11 shows the scores of 4 Indian cities in the 2018 Ease of Living Index. The Ease of Living Index is used to measure the liveability of 111 cities in India across 4 dimensions. Resource 12 shows the rankings for 4 Indian cities in the Ease of Living Index and Mercer's Quality of Living Survey in 2018.

(a) With reference to Resources 10, suggest possible challenges that Pune may face in meeting the needs of its elderly residents.

[5]

Indicative content

- The increasing trend in the number of elderly residents may strain city authorities' resources to meet their needs.
- There may be unreported cases of cruelty/abandonment/abuse of senior citizens, which makes it difficult for authorities to protect elderly residents.
- Pune has very few existing retirement homes to cater to its 700,000 senior citizens.

Levels-marked

Level	Marks	Descriptor
3	5	Response covers at least two challenges that Pune may face in meeting the needs of its elderly residents. Challenges are well-explained. Good and accurate use of the resource throughout by quoting relevant sections of the infographic. Response is consistently clear, detailed and focused on the question.
2	3 – 4	Response covers at least two challenges that Pune may face in meeting the needs of its elderly residents. Challenges may not be well-explained in some parts. Resource is used for some parts of the response. Response may lack clarity, detail and focus on the question at some parts.
1	1 – 2	Response covers only one challenge that Pune may face in meeting the needs of its elderly residents. Challenges are not well-explained. Limited or no use of the resource. Response lacks clarity, detail and focus on the question.
0	0	No creditworthy response.

(b) With reference to Resource 10, suggest what Pune can do to meet the needs of its elderly residents.

[6]

Indicative content

- Pune can increase the budget allocated to fund retirement homes.

- Pune can set up centres or helplines to facilitate the reporting of cruelty/abuse/abandonment of senior citizens
- Pune can set up a committee to look into measures to encourage active ageing.

Levels-marked

Level	Marks	Descriptor
3	5 - 6	Response covers at least two strategies that Pune can implement to meet the needs of its elderly residents. Links between proposed measure and the needs of elderly residents are well-explained. Good and accurate use of the resource throughout by quoting relevant sections of the infographic. Response is consistently clear, detailed and focused on the question.
2	3 – 4	Response covers at least two strategies that Pune can implement to meet the needs of its elderly residents. Links between proposed measure and the needs of elderly residents may not be well-explained in some parts. Resource is used for some parts of the response. Response may lack clarity, detail and focus on the question at some parts.
1	1 – 2	Response covers only one strategy that Pune can implement to meet the needs of its elderly residents. Links between proposed measure and the needs of elderly residents are not well-explained. Limited or no use of the resource. Response lacks clarity, detail and focus on the question.
0	0	No creditworthy response.

(c) Compare the scores for the 4 Indian cities shown in Resource 11.

[5]

Possible points

- Pune scored the highest overall (58) and also for 3 out of the 4 dimensions.
- Bengaluru scored the lowest overall (34) and also across all 4 dimensions.
- 3 out of the 4 cities performed worst in the physical dimension (Pune, Hyderabad and Bengaluru).
- Only Chennai performed worst in the economic dimension.
- The greatest disparity between the cities is in the social dimension (Pune scored the highest at 16 marks out of the maximum 25 marks [67% of max marks] and Bengaluru scored the lowest at 8 out of the maximum 25 marks [32% of the max marks]).

Levels- marked

Level	Marks	Descriptor
3	5	Response highlights both similarities and differences. Key similarities and differences are highlighted. Good and accurate use of the resource throughout by citing relevant figures from the resource and there is a good understanding of the weightage used in the index. Response is consistently clear, detailed and focused on the question.

2	3-4	Response highlights both similarities and differences, though not all are key similarities and differences. Resource is used for some parts of the response. There is some understanding of the weightage used in the index and data is mostly accurate. Response may lack clarity, detail and focus on the question at some parts.
1	1 – 2	Response highlights only key similarities or differences; or do not highlight any key similarities or differences (e.g. comparing the cities dimension by dimension). Limited or no use of the resource. There is poor understanding of the weightage used in the index, leading to inaccurate data. Response lacks clarity, detail and focus on the question.
0	0	No creditworthy response.

(e) With reference to Resources 11 and 12, and your own knowledge, assess the usefulness of measures of liveability.

[9]

Indicative content

Candidates should be able to articulate the different purposes/uses of measures of liveability (e.g. to assess current levels, for comparisons across space and time, to monitor progress, etc.). Candidates should discuss whether those measures have been useful in achieving the various purposes.

A higher level response will weigh the relative usefulness of measures by making comparisons across different measures to consider which measure has been relatively more useful. Candidates can also discuss the common challenges that come with measuring liveability and how this may limit the potential usefulness of measures of liveability (e.g. differences in dimensions and indicators used due to differences in purposes and definitions of liveability, resulting in differences in ranking of cities across various measures i.e. Resource 12).

Levels marked using H2 generic descriptors for 9m DRQ from Themes 1, 2 and 3