Source-based Questions (35m)

a)	**Study Source A.** **What can you infer from the cartoon about the use of internet? Explain your answer. [5m]**
L1	**Describes the source [1]** E.g. - I can infer from the cartoon that the use of internet brings about online shopping, MP3s, emails and also hackers, virus and worms.
L2	**Makes valid inferences, unsupported by source details [2 – 3]** E.g. - I can infer from the cartoon that the use of internet has brought about both advantages and threats to the people. [2] - I can infer that the cartoon is trying to <u>educate the public that they need to be vigilant when using the internet</u> because the internet has brought about both advantages and threats to the people. [3]
L3	**Makes valid inferences, supported by source details explained [4 – 5]** E.g. - I can infer from the cartoon that the use of internet has brought about both advantages and threats to the people. I know this because the upper panel shows that "with the internet, you can get online shopping, MP3s, emails" and at the lower panel shows "plus hackers, virus and worms". This means that the internet is a double-edged sword that brings about greater convenience to people but such convenience and ease of information has also led to cyber threats. [4] - I can infer that the cartoon is trying to <u>educate the public that they need to be vigilant when using the internet</u> because the internet has brought about both advantages and threats to the people. I know this because the upper panel shows that "with the internet, you can get online shopping, MP3s, emails" and at the lower panel shows "plus hackers, virus and worms". This means that the internet is a double-edged sword that brings about greater convenience to people but such convenience and ease of information has also led to cyber threats. [5]

b)	**Study Source B.** **What is the cartoon trying to achieve? Explain your answer. [6m]**

NOTE:
- Students will be given zero if they present their answers as: the cartoon tells me that...

L1	**Copies/ lifts from the source [1]** E.g. - The cartoon is trying to convince Singaporeans that cybersecurity measures involve collaboration among the government, business, individuals and academia civil society.
L2	**Makes valid inferences based on message/motive of source, unsupported [2]** E.g. - The cartoon is trying to convince Singaporeans that the government has put in a lot of effort into cybersecurity. - The cartoon is trying to convince Singaporeans that the country is well-prepared for cybersecurity threats. - The cartoon is trying to convince Singaporeans to be supportive and appreciative of the government's continuous efforts to strengthen cybersecurity.
L3	**Makes valid inferences based on message of source, supported [3 – 4]** Award the higher mark for more developed answer E.g. - The cartoon is trying to convince Singaporeans that the government has put in a lot of effort into cybersecurity and the country is well-prepared for cybersecurity threats. I know this because the cartoon shows the figures representing the government, business, individuals, and academia contributing to the building of the pyramid-shaped structure on the table. This means that there is close collaboration and concerted efforts among all stakeholders to uphold the country's cybersecurity defense.
L4	**Explains motive [5 – 6]** Award the higher mark for more developed answer E.g. - The cartoon is trying to convince Singaporeans that the government has put in a lot of effort into cybersecurity and the country is well-prepared for cybersecurity threats so that the Singaporeans will be supportive and appreciative of the government's continuous efforts to strengthen cybersecurity. I know this because the cartoon shows the figures representing the government, business, individuals, and academia contributing to the building of the pyramid-shaped structure on the table. This means that there is close collaboration and concerted efforts among all stakeholders to uphold the country's cybersecurity defense.

c)	**Study Sources C and D.**
	How far do these two sources agree with each other? Explain your answer. [7m]

Note: Students will be given zero if they present their answers as both sources are similar or different in terms of

L1	**No explicit matching of source content [1]**

L2	**Agree OR disagree based on provenance / topic [2]**
	E.g.
	- Both sources agree as they are both about cyber-attacks in Singapore.
	.

L3	**Agree OR disagree based on source content/ motive, unsupported [3]**
	E.g.
	- Both sources disagree on whether individuals can prevent cyber-attacks. Source C tells me that individuals can do their part to prevent cyber-attacks while Source D tells me that individuals will not be able to prevent cyber-attacks.
	- Both sources agree that Singapore is not safe from cyber-attacks.
	- Both sources agree how serious the cybersecurity threats facing Singapore.
	- Both sources disagree in terms of motive. Source C is trying to convince Singaporeans that they are responsible for preventing cyber-attacks so that they will be more careful with their online activities. While Source D is trying to convince Singaporeans that it is difficult for individuals to prevent cyber-attacks so that they report such cases to authorities immediately to minimise losses.

L4	**Agree OR disagree based on source content, supported [4]**
	E.g.
	- Both sources agree that Singapore is not safe from cyber-attacks. I know this because Source C states that "there was a cyber-attack on the Ministry of Defence (MINDEF) where the personal details of 850 national servicemen and personnel were leaked". This means that Singapore has been attacked by cybercrimes. Likewise, I know this because Source D states that "Cybercrime is the only crime that's increasing in Singapore". This means that Singapore is constantly being targeted by cyber-attacks.
	- Both sources disagree on whether individuals can prevent cyber-attacks. Source C tells me that individuals can do their part to prevent cyber-attacks. I know this because Source C states "Singapore residents should be vigilant about cyber security and not assume that cyber-attacks happen only to large organisations. Individuals do need to be mindful with e-mail attachments and links they open, apps they download and Wi-Fi hotspots they connect to". This means that it is within the individuals' control to be careful to prevent cyber-attacks. However, Source D tells me that individuals will not be able to prevent cyber-attacks. I know this because Source D states "What's scary is that even if you protect your personal data from a hacker with the best cyber security software money can buy; you're still vulnerable to hacker groups that target the companies and government agencies that also hold your personal data". This means that even if individuals are careful, cyber-attacks can still occur and hence it is not within their control.

L5	**Agree AND disagree based on source content, supported [5 – 6]**
	Award the higher mark for more developed answer

L6	**Disagree based on motive, explained [6 – 7]**
	Award the higher mark for more developed answer
	E.g.
	- Both sources disagree in terms of motive. Source C is trying to convince Singaporeans that they are responsible for preventing cyber-attacks so that they will be more careful with their online activities. I know this because Source C states "Singapore residents should be vigilant about cyber security and not assume that cyber-attacks happen only to large organisations. Individuals do need to be mindful

c)	**Study Sources C and D.** **How far do these two sources agree with each other? Explain your answer. [7m]**
	with e-mail attachments and links they open, apps they download and Wi-Fi hotspots they connect to". This means that it is within the individuals' control to be careful to prevent cyber-attacks. However, Source D is trying to convince Singaporeans that it is difficult for individuals to prevent cyber-attacks so that they will report any such cases to authorities immediately to minimise losses. I know this because Source D states "What's scary is that even if you protect your personal data from a hacker with the best cyber security software money can buy; you're still vulnerable to hacker groups that target the companies and government agencies that also hold your personal data". This means that even if individuals are careful, cyber-attacks can still occur and hence it is not within their control.

d)	**Study Sources E and F.** **Having read Source E, are you surprised by Source F in saying that Singapore's cybersecurity is not sufficiently strong? Explain your answer. [7m]**
	NOTE: - Students will be given zero if they fail to state if they are surprised by Source F.
L1	**Surprised/ not surprised, based on undeveloped use of provenance [1]** E.g. - I am not surprised by Source F as it is by the Chief Executive Officer of Singapore's Cyber Security Agency (CSA). **OR Surprised/ not surprised, based on content but no matching [1]**
L2	**Surprised/ not surprised, based on content of Base Source F [2]** E.g. - After reading Source E, I am surprised by Source F in saying that Singapore's cybersecurity is not sufficiently strong. I know this because Source F states "it was by sheer chance that we escaped largely unscathed. It is not that Singapore is particularly good or that Singaporeans are very alert with respect to malware; we were just lucky". This means that there are many weaknesses in Singapore's cyber defense and these could have been easily exploited by cyber-attacks.
L3	**Surprised, based on difference in content [3-4]** Award the higher mark for more developed answer E.g. - After reading Source E, I am surprised by Source F in saying that Singapore's cybersecurity is not sufficiently strong. I know this because Source F states "it was by sheer chance that we escaped largely unscathed. It is not that Singapore is particularly good or that Singaporeans are very alert with respect to malware; we were just lucky". This means that there are many weaknesses in Singapore's cyber defense and these could have been easily exploited by cyber-attacks. <u>However, Source E contradicts Source F and says that Singapore's cybersecurity is strong</u>. I know this because Source E states that "Singapore has topped the Global Cybersecurity Index (GCI) 2017 released by the United Nations" and "Singapore has a long history of cybersecurity initiatives" and has "a comprehensive and coordinated national cybersecurity strategy" and "pumping as much as $528 million into cybersecurity spending". This means that Singapore has done a lot of preparation and if a cyber-attack takes place, it will not succeed as Singapore is the most ready country to handle it.
L4	**L3 + Surprised OR/AND Not surprised through cross-referencing to OR motive of Source E [4-5]**
L5	**L3 + Surprised OR not surprised through cross-referencing to Base Source F [5-6]** *Award the higher mark for more developed answer* E.g. - After reading Source E, I am surprised by Source F in saying that Singapore's cybersecurity is not sufficiently strong as Source F is contradicted by Source B. I know this because Source F states "it was by sheer chance that we escaped largely unscathed. It is not that Singapore is particularly good or that Singaporeans are very alert with respect to malware; we were just lucky". This means that there are many weaknesses in Singapore's cyber defense and these could have been easily exploited by cyber-attacks. However, Source B says that the government has put in a lot of effort into cybersecurity and Singapore is well-prepared for cybersecurity threats. I know this because the cartoon shows the figures representing the government, business, individuals, and academia, all contributing to the building of the pyramid-shaped structure on the table. This means that there is close collaboration and concerted efforts among all stakeholders to uphold the country's cybersecurity defense. Also, the figures are keeping a constant and vigilant watch over the structure, and are seen adding more paper cards to the pyramid structure. This means that the stakeholders

d)	**Study Sources E and F.** **Having read Source E, are you surprised by Source F in saying that Singapore's cybersecurity is not sufficiently strong? Explain your answer. [7m]**
	are not complacent as they are aware of how malicious / unpredictable cyber threats are and how there is always a need to further strengthen cyber defenses with more measures. - After reading Source E, I am not surprised by Source F in saying that Singapore's cybersecurity is not sufficiently strong as Source F is supported by Source D. I know this because Source F states "it was by sheer chance that we escaped largely unscathed. It is not that Singapore is particularly good or that Singaporeans are very alert with respect to malware; we were just lucky". This means that there are many weaknesses in Singapore's cyber defense and these could have been easily exploited by cyber-attacks. Likewise, Source D says that Singapore's cybersecurity is not sufficiently strong. I know this because Source D states that "Cybercrime is the only crime that's increasing in Singapore". This means that Singapore is constantly being targeted by cyber-attacks.
L6	**L3 + Surprised AND not surprised through cross-referencing to Base Source F [6-7]** **L5 + Surprised due to motive of Source F (enhanced)** - Given that the author is the CEO of CSA, it is expected that he will say Singapore's cybersecurity is full proof as he has to show that Singapore Government is doing a good job in ensuring the safety of the country. However, the fact that he admitted Singapore is lucky to escape cybersecurity threats and indicated that the Singapore's cybersecurity is not perfect and is still vulnerable to cyber-threats makes me surprised by Source F as this could result in Singaporeans losing faith in the Government's capability in ensuring our safety. *Award the higher mark for more developed answer*

e)	**"Singapore is capable of managing cybersecurity challenges". Using sources in this case study, explain how far you would agree with this statement. [10m]**
L1	**Writes about statement, no valid source use. [1]** E.g. - I agree that Singapore is capable of managing cybersecurity challenges as the Cyber Security Agency was set up to oversee and coordinate activities to strengthen Singapore's cybersecurity.
L2	**Yes/ No, supported by valid source use. [2 – 4]** *1 source [2 – 3]* *2 sources [3 – 4]* E.g. - I agree that Singapore is capable of managing cybersecurity challenges as supported by Sources B and E. Source B tells me that Singapore is capable of managing cybersecurity challenges. I know this because the cartoon shows the figures representing the government, business, individuals, and academia, all contributing to the building of the pyramid-shaped structure on the table. This means that there is close collaboration and concerted efforts among all stakeholders to uphold the country's cybersecurity defense.. Also, the government put in a lot of effort to further strengthen cyber defenses with more measures shows that Singapore is well-prepared and capable of managing cybersecurity threats. Source E tells me that Singapore is capable of managing cybersecurity challenges. I know this because Source E states that "Singapore has topped the Global Cybersecurity Index (GCI) 2017 released by the United Nations" and "Singapore has a long history of cybersecurity initiatives" and has "a comprehensive and coordinated national cybersecurity strategy" and "pumping as much as $528 million into cybersecurity spending". This means that Singapore has done a lot of preparation and if a cyber-attack takes place, it will not succeed as Singapore is the most ready country to handle it and ensures that any cybersecurity breach is quickly contained and recovery is possible. - I disagree that Singapore is capable of managing cybersecurity challenges as supported by Sources D and F. Source D tells me that Singapore is not capable of managing cybersecurity challenges. I know this because Source D states that "Cybercrime is the only crime that's increasing in Singapore". This means that Singapore is constantly being targeted by cyber-attacks. Also, Source D states "What's scary is that even if you protect your personal data from a hacker with the best cyber security software money can buy; you're still vulnerable to hacker groups that target the companies and government agencies that also hold your personal data". This means that even if individuals are careful, cyber-attacks can still occur and hence it is not within Singaporeans' control to manage cybersecurity challenges. Source F tells me that Singapore is not capable of managing cybersecurity challenges. I know this because Source F states "it was by sheer chance that we escaped largely unscathed. It is not that Singapore is particularly good or that Singaporeans are very alert with respect to malware; we were just lucky" and "The attackers are nimble, well-resourced and world-class. So, realistically, we can't prevent a cyberattack". This means that there is no end-point to cyber threats because of its malicious and evolving nature, resulting in no nation being fully prepared. There are also many weaknesses in Singapore's cyber defense and these could have been easily exploited by cyber-attacks.
L3	**Yes & No, supported by valid source use [5 – 8]** i.e. both elements of L2 **Note : Consideration on number of sources used and the quality of analysis in deciding on marks in L2 and L3** *1 source vs 1 source [5]*

** To score additional 2 marks, candidates can take any one of these 3 routes:
- through analysing at least one source in relation to its reliability, utility or sufficiency
- by sharing example(s) from their contextual knowledge
- by giving a balanced conclusion/resolution
(provided the source has been explained clearly at L2)

- **Through analysing at least one source in relation to its reliability, utility or sufficiency**
  I cannot trust Source B in telling me that Singapore is capable of managing cybersecurity challenges because it is published by the Government who has a hidden agenda to convince Singaporeans that the government has put in a lot of effort into cybersecurity and the country is well-prepared for cybersecurity threats so that the Singaporeans will be supportive and appreciative of the government's continuous efforts to strengthen cybersecurity. Since the source is biased in only reflecting the positive efforts taken by the Government towards strengthening cybersecurity, the source is less reliable. [+2]

- **By sharing example(s) from their contextual knowledge**
  I agree with Source E in saying that Singapore is capable of managing cybersecurity challenges because there have been *increasing efforts to promote adoption of cyber security measures among businesses and individuals.* The government will strengthen efforts to raise infocomm security awareness and the adoption of security measures amongst users and businesses. For example, the Cyber Security Awareness and Outreach programme, will enhance existing outreach channels through social media platforms, educational talks, road-shows, and print advertorials. [+2]

- **By giving a balanced conclusion/resolution**
  Singapore is capable of managing the challenges posed by cyberattacks in terms of the government commitment and having a comprehensive, dedicated, sustained and multi-level approach to prevent as well as to respond to cyberattacks. This approach shows the government's awareness of how cyber threats are continuously evolving and so there is no room for complacency. However, Singapore is still vulnerable to cyberattacks because no level of preparation will be enough to prevent a cyberattack as the attackers are devious and always ahead of the game. Singapore's approach focuses on preparing to not only prevent cyberattacks, but also to effectively respond to attacks if they cannot be prevented. Given the complex nature of cyber threats, this is as prepared as any country can be. [+2]

2(a)	**Extract 1 talks about the lack of harmony in a diverse Singapore society. In your opinion, how can we promote greater harmony in a diverse Singapore society? Explain your answer using <u>two</u> ways. [7]**
L1	**Describes the topic i.e. lack of harmony in Singapore [1]**
L2	**Identifies/Describes strategies [2 - 4]** Award 2 marks for identifying one way and 3 marks for identifying two ways. Award 3 marks for describing one way and 4 marks for describing two ways**.** E.g. Singapore can promote greater harmony by building more shared facilities around the HDB neighbourhoods. The government can build more playgrounds, void decks, exercise corners, parks and community centres. The government can ensure that these shared facilities are more spread out whereby every housing block has common space for the residents to congregate at and utilise. E.g. Singapore can promote greater harmony by creating more common experiences among the people in Singapore. For example, the government can organise more community involvement programmes where the residents of an estate can get involved in the neighbourhood's affairs. The residents can come together to plan long term environmental conservation programme such as managing an edible garden together or planning weekly clean up exercises
L3	**L2 + Explains challenges [5 – 7]** Award 5 – 6 marks for explaining one way. Award 6 – 7 marks for explaining two ways. **Note: An explanation is showing how the way leads to achieving more harmony in Singapore.** E.g. Singapore can promote greater harmony by building more shared facilities around the HDB neighbourhoods. For example, the government can build more playgrounds, void decks, exercise corners, parks and community centres. The government can ensure that these shared facilities are more spread out whereby every housing block has common space for the residents to congregate at and utilise. <u>In this way, there are more opportunities for the residents to live and play together. W</u><u>hen people of different ethnic groups socialize and communicate with one another, they gain mutual understanding of each other's culture and beliefs, becoming more accepting of one another, fostering friendships among the residents, leading to greater social cohesion and harmony in Singapore.</u> E.g. Singapore can promote greater harmony by creating more common experiences among the people in Singapore. For example, the government can organise more community involvement programmes where the residents of an estate can get involved in the neighbourhood's affairs. The residents can come together to plan long term environmental conservation programme such as managing an edible garden together or planning weekly clean up exercises. <u>In this way, the residents have common experience which will result in them developing sense of purpose and identity. These help them feel more bonded and united, and promotes positive interactions. Friendships will be fostered, leading to greater social cohesion and harmony in Singapore.</u>

2(b)	Extract 2 and Extract 3 highlight the issues of competition for resources as well as prejudice and misconceptions happening between the locals and foreigners. Do you think that competition for resources is a greater challenge than prejudice and misconceptions in a diverse society? Explain your answer. **[8]**
L1	**Writes about the topic (i.e. challenges of diverse society) but without addressing the question. [1 – 2]**
L2	**Describes the challenges. [3 – 4]** *Award 3 marks for describing one challenge and 4 marks for describing both challenges.* Prejudice and misconceptions is one challenge facing a diverse society. Differences in cultural background can lead to differing and sometimes conflicting views on values, beliefs and customs. Negative sentiments can arise when people jump to conclusions about others and have misconceptions due to insufficient understanding and erroneous assumptions. Generalized thoughts about people are called stereotypes. Stereotypes are beliefs held by one social group about another social group. When the stereotypes are negative, they are called prejudices. For example, Arabs and Muslim-Americans became victims of hate crimes in America after the 9/11 terrorist attacks. Competition for resources is another challenge facing a diverse society. With the increasing numbers of foreigners in our workforce, some Singaporeans fear that foreigners are taking jobs away. Another concern that affected Singaporeans was in the areas of living space and infrastructure. The concerns were over an increasingly congested public transport system, competition over healthcare resources as well as the availability of public housing.
L3	**Explains the policies. [5 – 7]** **Note: An explanation is showing how the challenge affects the diverse society adversely.** Award 5 – 6 marks for explaining one challenge. Award 6 – 7 marks for explaining both challenges. Prejudice and misconceptions is one challenge facing a diverse society. Differences in cultural background can lead to differing and sometimes conflicting views on values, beliefs and customs. Negative sentiments can arise when people jump to conclusions about others and have misconceptions due to insufficient understanding and erroneous assumptions. Generalized thoughts about people are called stereotypes. Stereotypes are beliefs held by one social group about another social group. When the stereotypes are negative, they are called prejudices. For example, Arabs and Muslim-Americans became victims of hate crimes in America after the 9/11 terrorist attacks. <u>Prejudice and misconceptions are challenges in a diverse society because they will create unhappiness and negative sentiments among the different communities. This will result in more discrimination whereby a group starts to treat another unfairly and unkindly for no good reason. This could lead to conflicts and a highly divided society characterised by distrust.</u> Competition for resources is another challenge facing a diverse society. With the increasing numbers of foreigners in our workforce, some Singaporeans fear that foreigners are taking jobs away. Another concern that affected Singaporeans was in the areas of living space and infrastructure. The concerns were over an increasingly congested public transport system, competition over healthcare resources as well as the availability of public housing. <u>The competition for resources is a challenge in a diverse society because it leads to a high level of social tension among the local and foreigner communities. This will result in lesser cooperation between the communities and more instances of conflicts and discrimination. The society will not be united as the locals are disenchanted with foreigners and are unwelcoming of them.</u>
L4	**Both aspects in L3 plus explains the relative importance of policies [8]** I think that prejudice and misconceptions is a greater challenge than the competition for resources as it is the underlying and fundamental issue that creates disunity and tensions in a diverse society. When locals do not hold prejudice or misconception against foreigners, they can better understand the foreigners' positions, and will not pin the blame of competition of resources solely on foreign communities but be more accepting of them.