Name:_____   Register/Index Number: _____   Class: _____

PRESBYTERIAN HIGH SCHOOL

HUMANITIES
Paper 1   Social Studies   2272/01, 2273/01

14 August 2023   Monday   1 hour 45 minutes

2023 SECONDARY 4 EXPRESS AND FIVE NORMAL (ACADEMIC) PRELIMINARY EXAMINATION

READ THESE INSTRUCTIONS FIRST:

An answer booklet will be provided with this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

Section A
Answer **all** questions.

Section B
Answer **both** questions.

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

Setter: Mdm Sherinder Kaur
Vetter: Mrs Celine Tan

This question paper consists of **8** printed pages (including this cover page) and **0** blank page.

SECTION A (Source-Based Case Study)

Answer **all** questions.

Being Part of a Globalised World

Study the Background Information and sources carefully, and then answer all the questions.

You may use any of the sources to help you answer the questions, in addition to those sources which you are told to use. In answering the questions, you should use your knowledge of the topic to help you interpret and evaluate the sources.

1   Study Source A.

What is the message of the source? Explain your answer, using details from the source.   [5]

2   Study Sources B.

Why did the Minister for Education give the following response? Explain your answer.   [6]

3   Study Sources C and D.

Sources C and D give different views on Artificial Intelligence (AI). Does this mean that one of them cannot be trusted? Explain your answer.   [7]

4   Study Sources E and F.

Having read Source E, are you surprised by Source F? Explain your answer.   [7]

5   "Artificial Intelligence brings about more harm than good."

Using sources in this case study, explain how far you would agree with this statement.   [10]

What are the implications of the use of Artificial Intelligence (AI)?

BACKGROUND INFORMATION

Read this carefully. It may help you to answer some of the questions.

A recent survey of the *Fortune Global 500** found that leaders who chose to invest in Artificial Intelligence (AI) tools expect to see significant growth in their companies. One example of an AI tool that has taken the world by storm when it was first released for public use on 30 November 2022 is ChatGPT. Within two months of its release, it reached 100 million active users, making it the fastest-growing consumer application ever launched. Some users are attracted to AI's advanced capabilities while others are concerned about its potential to cause disruption in various sectors. Indeed, the adoption of AI has both pros and cons.

*The Fortune Global 500, also known as Global 500, is an annual ranking of the top 500 corporations worldwide as measured by revenue.

Study the following sources to find out what the implications of the use of Artificial Intelligence (AI) are.

Source A: *A cartoon on ChatGPT.*

Source B: *Minister for Education, Mr Chan Chun Sing's response to Member of Parliament, Mr Shawn Huang's question on how the Ministry of Education will manage the use of Artificial Intelligence (AI) bots such as ChatGPT in schools, 7 February 2023.*

As with any technology, generative AI tools such as ChatGPT present both opportunities and challenges. When used appropriately, these tools can support students in their learning when students have mastered basic concepts and thinking skills.

In their daily work, students are taught the importance of integrity and the harmful impacts and consequences of plagiarism. In addition, through daily interactions with students and from using multiple modes of assessment, teachers are able to gauge students' proficiency and detect uncharacteristic responses that could be AI-generated. MOE will continue to monitor the impact of these tools on learning and equip students with the skills and values to enable them to harness technology confidently and responsibly. Our approaches will evolve as we adapt to the use of new AI tool

Source C: *From an article published by Vice Motherboard, 27 April 2023. Vice Motherboard interviewed several workers about how they were using ChatGPT in their daily work lives.*

Ben, said he applied for a second job only after realizing he could use the AI tool at work. From Toronto, Ben helps financial-technology companies market new products. He told Vice that ChatGPT had helped him do his job faster and more efficiently, which left him with more time.

"That's the only reason I got my job this year," Ben told Vice. "ChatGPT does, like, 80% of my job if I'm being honest."

He added: "I can just tell it to create a story, and it just does it for me based on the context that I gave it."

Ben told the outlet that he still needed to tweak the text at times.

He said he even used the chatbot to write messages to his manager, prompting the bot to write them in lowercase letters so they appeared organic.

* *Vice Motherboard is an online magazine and video channel dedicated to technology, science, and humans.*

Source D: *From an article published on by Reuters*, 9 May 2023. The article focuses on an interview with Geoffrey Hinton, also known as the 'godfather' of Artificial Intelligence (AI).*

A pioneer of Artificial Intelligence, also known as the 'godfather' of AI said he quit Google to speak freely about the technology's dangers, after realising computers could become smarter than people far sooner than he and other experts had expected.

In an interview with the New York Times, Hinton said he was worried about AI's capacity to create convincing false images and texts, creating a world where people will "not be able to know what is true anymore".

"It is hard to see how you can prevent the bad actors from using it for bad things," he said.

He further emphasised on the dangers of the technology which could quickly displace

*Reuters is a global information and news provider headquartered in London, England, that serves professionals in the financial, media, and corporate markets.

Source E: *From an article taken from The Straits Times, titled, "Government agencies exploring use of AI to block scam websites faster: Josephine Teo", 17 February 2022.*

Mrs Teo said that in the OCBC bank cases, more than 350 scam websites had been blocked, with around 52 sites blocked in a single day at the peak.
However, she said that the crooks were quick to create new websites in their scam campaigns, and that this kind of behaviour will persist.
So, using AI to help detect and block such sites, could help the government strengthen its ability to tackle scam sites and be more responsive.
"The police are working with other government agencies, such as the Cybersecurity Agency of Singapore and IMDA, to explore how such technological tools can help identify scam websites for our local context," said the ministry.
These tools would help the police to more efficiently and effectively detect and block the huge number of scam websites being put up," said the Ministry of Home Affairs.

Source F: *From an article published on Channel News Asia, 16 February 2023.*

Phishing emails are not new - current technique duplicates one template millions of times and mass sends to users. Due to the fixed templates, they are much easier for email systems to detect and warn users, or to automatically block or direct to the spam folder.

"But with AI-generated messages, it would be a lot more difficult to detect because the content looks like human written messages, and every email can look different. With this, the chances of phishing emails penetrating into individuals' mailboxes and being mistakenly clicked on and led to malicious websites (or downloads) will be higher" said Professor Lam*.

These scam emails can now be generated even faster than ever with these chatbots, written in convincing styles free from spelling or grammatical errors so often seen in today's phishing emails.

Apart from phishing, experts warn that the technology can also be used to write

Professor Lam is from the from the Nanyang Technological University's school of computer science and engineering.

SECTION B (Structured-Response Questions)

Answer **both** questions.

Exploring Citizenship and Governance

Study the extracts carefully, and then answer the questions.

Extract 1

The image shows children of different races holding the Singapore flag as they celebrate National Day together.

Extract 2

Citizens have an important role to improve and sustain the general well-being of a society. Often, citizens contribute in areas that they are passionate and concerned about. As a result, there is greater sense of ownership and commitment towards these causes. This leads to long term involvement which would ensure sustainable benefits to society.

Extract 3

Feedback and suggestions from Singaporeans can influence the decisions made and plans for Singapore. In instances when there are proposals or draft plans, citizen

feedback and suggestions may enable necessary changes and improvements to be made.

6 Extract 1 shows a picture of children from different races holding the Singapore flag as they celebrate National Day together.

In your opinion, why is it important to continue to cultivate and instill a strong sense of national identity in Singaporeans? Explain your answer with reference to **two** reasons.
[7]

7 Extracts 2 and 3 reflect on the role of citizens in contributing to the needs of society and influencing government's decisions in working for the good of society.

Do you think the role of citizens in contributing to the needs of society is more significant than influencing government's decisions in working for the good of society?
[8]

Source C: *https://www.businessinsider.com/chatgpt-second-job-overworking-overemployment-2023-4?utm_campaign=tech-sf&utm_medium=social&utm_source=facebook*

Source D: https://www.reuters.com/technology/google-ai-pioneer-says-he-quit-speak-freely-about-technologys-dangers-2023-05-02/

Source E: *https://www.straitstimes.com/singapore/politics/government-agencies-exploring-use-of-ai-to-block-scam-websites-faster-jo-teo*

Source F: : *https://www.channelnewsasia.com/singapore/chatgpt-ai-chatbot-risks-regulations-cybercrime-phishing-3282896*