UNIVERSITI
TEKNOLOGI
PETRONAS

FINAL EXAMINATION
MAY 2024 SEMESTER

COURSE   :   **TAM5043 – DIGITAL AND KNOWLEDGE ECONOMY**

DATE   :   **4 AUGUST 2024 (SUNDAY)**

TIME   :   **2:30 PM – 6:30 PM (4 HOURS)**

INSTRUCTIONS TO CANDIDATES

1. Answer **ALL** questions in the Answer Booklet.

2. Begin **EACH** answer on a new page in the Answer Booklet.

3. Indicate clearly answers that are cancelled, if any.

4. Where applicable, show clearly steps taken in arriving at the solutions and indicate **ALL** assumptions, if any.

5. **DO NOT** open this Question Booklet until instructed.

Note :

    i. There are **FIVE (5)** printed pages in this **double-sided** Question Booklet including the cover page .

1. The Paris Agreement was signed almost nine years ago on Dec 12 2015, by 196 nations including Malaysia. It was a breakthrough in global climate governance and cooperation, with a target to limit global warming this century to 1.5°C, and at most, to 2°C. As part of this, each signatory country had committed to its own Nationally Determined Contributions (NDCs) to reduce carbon emissions. However, many countries are not on track to meeting their Paris commitments, and nine years on, with more advanced approaches to climate modelling, the data is telling us that global warming is on track to hit 2.8°C, far exceeding the Paris Agreement's limit of 2°C. This means that there is tremendous pressure from responsible countries, prudent regulators, and allocators of capital to do more and accelerate efforts towards meeting the Paris Agreement's ambitions.

a. Determine the feasibilities and impact of digital economy to address the above problem in Malaysian context. You may start by linking digital economy with climate change, current Malaysia digital landscape, potential impact areas such as smart cities, and metrics to measure success of the digitization.

[13 marks]

b. Elaborate **TWO (2)** innovations in the digitalization of smart cities that can help fulfil the ambitions of Paris agreement. You can consider the sectors of waste and energy management.

[12 marks]

2. e-Money has emerged as a dominant player in Malaysia's e-wallet market, capturing a significant share of transactions across various sectors, including retail, transportation, and food delivery. Its user-friendly interface, seamless integration with popular merchants, and attractive cashback incentives have contributed to its widespread adoption among consumers.

    a. Explain **TWO (2)** digital innovations of e-Money that create value for both users and merchants.

    [10 marks]

    b. Discuss **TWO (2)** barriers that hinder widespread adoption of e-Money for daily transactions.

    [10 marks]

    c. Elaborate **ONE (1)** measure that e-Money can take to build trust and confidence among users in the security of its platform.

    [5 marks]

3. The travel and tourism industry heavily relies on User-Generated Content (UGC). Travelers often seek advice, recommendations, and reviews from fellow travelers when planning their trips. In response, businesses in this sector encourage customers to share their experiences and insights on various platforms. This approach helps build trust, engage potential customers, and fosters a sense of community. Imagine a travel agency "JOMTravels" that offers various vacation packages and travel services. Over the past few years, they have actively encouraged their customers to share their experiences and insights about their travels through blogs, social media, and reviews on platforms like TripAdvisor. "JOMTravels" recently conducted an analysis to assess the impact of UGC on their business and the broader digital economy. Based on the case study mentioned above, answer the following questions:

a. Discuss **TWO (2)** ways UGC contributes to the digital economy within the travel and tourism industry.

[10 marks]

b. Discuss how the exchange of travel experiences and insights among users contribute to the accumulation of knowledge capital.

[5 marks]

c. Elaborate **TWO (2)** strategies that businesses can employ to effectively harness UGC as a valuable resource in the knowledge economy.

[10 marks]

4.   **FIGURE Q4** presents some of the highlights of the recent Malaysia Digital Economy Blueprint. In the figure, some of the MyDIGITAL initiatives are listed.
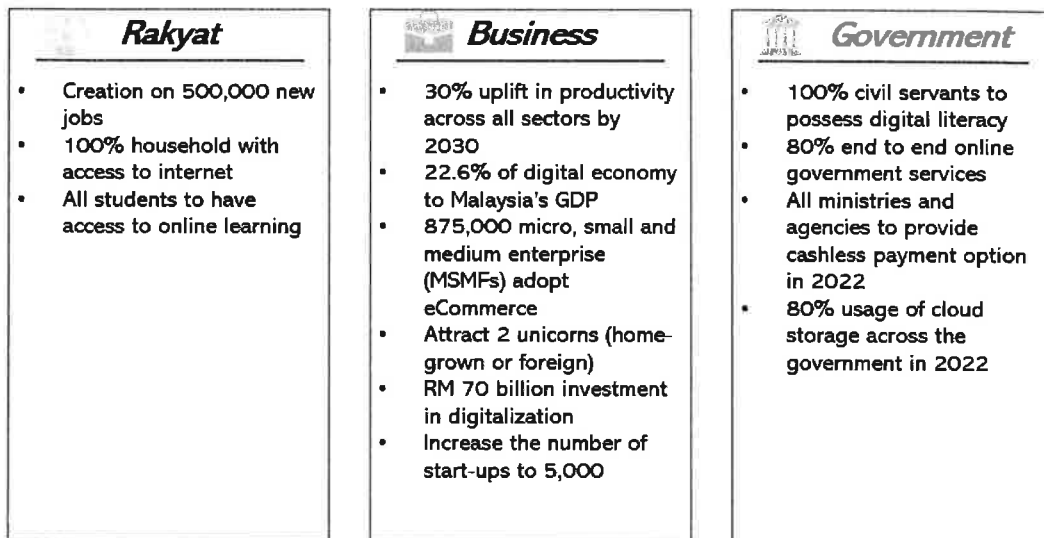
Rakyat	*Business*	*Government*
• Creation on 500,000 new jobs • 100% household with access to internet • All students to have access to online learning	• 30% uplift in productivity across all sectors by 2030 • 22.6% of digital economy to Malaysia's GDP • 875,000 micro, small and medium enterprise (MSMEs) adopt eCommerce • Attract 2 unicorns (home-grown or foreign) • RM 70 billion investment in digitalization • Increase the number of start-ups to 5,000	• 100% civil servants to possess digital literacy • 80% end to end online government services • All ministries and agencies to provide cashless payment option in 2022 • 80% usage of cloud storage across the government in 2022

FIGURE Q4. Part of the MyDIGITAL initiative, Malaysia Digital Economy Blueprint.

a.   Discuss the possible digital threats to the implementation of any **ONE (1)** of the digital economy initiatives shown in FIGURE Q4 and propose mitigation plans.

[5 marks]

b.   One possible initiative by universities to support MyDIGITAL ambitions can be setting up a seed grant to support start-ups. Discuss **THREE (3)** other possible steps universities can take to help achieve MyDIGITAL initiatives.

[15 marks]

c.   Discuss how the knowledge base of a university in the form of online courses, trainings, and development programs can be utilized to fast-track achievement of Rakyat and Business initiatives.

[5 marks]

-   END OF PAPER   -