UNIVERSITI TUNKU ABDUL RAHMAN

ACADEMIC YEAR 2021/2022

MAY 2021 TRIMESTER

FINAL ASSESSMENT

MPU32143 ENGLISH FOR INFORMATION TECHNOLOGY

SATURDAY, 18 SEPTEMBER 2021

TIME: 2:00 PM - 4:30 PM (2.5 HOURS)

BACHELOR OF COMPUTER SCIENCE (HONOURS)

BACHELOR OF INFORMATION TECHNOLOGY (HONOURS) COMPUTER ENGINEERING

BACHELOR OF INFORMATION TECHNOLOGY (HONOURS)

COMMUNICATIONS AND NETWORKING

BACHELOR OF INFORMATION SYSTEMS (HONOURS) INFORMATION

SYSTEMS ENGINEERING

BACHELOR OF INFORMATION SYSTEMS (HONOURS) BUSINESS

INFORMATION SYSTEMS

Instructions to Candidates:

REMINDER: You are reminded to read and adhere to the Final Assessment Instructions to candidates that has been made available through the UTAR Portal before the commencement of Final Assessment (FA). The detailed instructions for this FA are as follows:

General

1. This Final Assessment (FA) is an Individual, time restricted assessment which consists of **THREE (3)** sections:

SECTION A [TOTAL: 40 MARKS] Reading ComprehensionAnswer **ALL** questions.

SECTION B [TOTAL: 30 MARKS]
Report Writing
Answer THE question.

SECTION C [TOTAL: 30 MARKS] Interpretation of Graphical Data Answer THE question.

2. You are required to answer ALL questions, and submit the ANSWER SCRIPT by 4:30 PM, 18 SEPTEMBER 2021.

- 3. During the period of 2.5 hours of this FA, the examiner(s) can be reached at
 - a. Microsoft Teams
 - b. Email: smtan@utar.edu.my

You may use the above e-platform(s) to check with the examiner(s) if you need any clarification on this FA question paper.

4. You may refer to any books, lecture notes, published materials, online resources etc. When answering the questions. Proper referencing is necessary to avoid plagiarism. The preferred referencing style is American Psychological Association (APA). Candidates are reminded that Copy-and-Paste, Consultation, Discussion and Sharing of Answers with others are STRICTLY PROHIBITED in this FA

Answer Script File

- 5. Download the **Answer Script** file from WEBL entitled **MPU32143-Answer Script** and answer **ALL** questions in it.
- 6. The answer script MUST be a Microsoft Word file (doc or docx) [Compulsory for text-based submission to enable Turnitin Plagiarism Check] in A4 size format. Any answer script in PDF format will be automatically rejected. Note: The file size must NOT exceed 30MB.
- 7. Please check your Index Number generated by the Division of Examinations, Awards, and Scholarships (DEAS). You **MUST** name your answer script file using the following file name for submission:

MPU32143_FA_[Programme Abbreviation]_[Your Index Number].

For example, if you are from the degree programme CN, and your index number is A12345CBCNF, then your answer script should be named as MPU32143_FA_IA_A12345CBCNF.

Answer Script File Submission

- 8. Your answer script file has to be submitted to the following platform(s) before the due time/date.
 - a. Attach your answer script on WBLE (in the folder entitled Submission of FA SEPTEMBER 2021)
 - b. Send your answer script to MPU32143.FAS@utar.edu.my.

Note: For the subject / title of your email, use the file name of your answer script, i.e.,

MPU32143_FA_[Programme Abbreviation] [Your Index Number]

9. Please make sure you submit the correct, complete and final version of your answer script and the same copy of answer script file is to be submitted to the above platform(s). When multiple answer script files are received, the examiner will randomly choose one for marking.

Contents of Answer Script

- 10. Download and answer <u>ALL</u> the questions in the MPU32143-Answer Script (file: PLEASE USE THIS ANSWER SCRIPT).
- 11. The **first page** of your submission is the **Final Assessment Cover Page**. You **MUST** use the template given and fill in the following information
 - a. Your Programme (Abbreviation)
 - b. Your Index Number
 - c. Your Name
 - d. Your Student ID
- 12. The **second page** of your submission is the **Final Assessment Declaration Statement**. You **MUST** use the template given, and digitally sign on the form to indicate the authenticity of your submitted work is without plagiarism.
- 13. Type your answer below each question, in the text box (SECTION A, SECTION B and SECTION C) provided.
- 14. For answer scripts that have text-based answers only, all texts MUST be typed and recommended using Times New Roman characters with font size 12, with 1.5 line spacing and justified alignment.
- 15. Please include a page number on **each and every page** of your answer script. Ensure that each page of answer scripts is in sequence prior to online submission.

WARNING ON PLAGIARISM

16. Answer scripts shall be uploaded to Turnitin to check for the originality of submitted answers. In the case of suspected plagiarism, the evidence will be submitted to the Examination Disciplinary Committee of the University. Disciplinary action shall be taken against any candidate who is found to have plagiarized in the answer submitted. Hence, candidates are reminded to abide by all University Rules and Regulations and any instructions/guidelines relating to examinations/assessments.

Name: Student ID: Index Number: Programme: Course Code: Course Name:

Final Assessment Declaration Statement



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DECLARATION

I,	(Name), Student ID.
hereby solemnly and fully Tunku Abdul Rahman, I	declare and confirm that during my programme of study at Universiti shall abide and comply with all the rules, regulations and lawful Funku Abdul Rahman and endeavour at all times to uphold the good
except for citations and qu	submission for this Final Assessment is based on my original work, notations which have been duly acknowledged. I am fully aware that d of violating this pledge are liable to be referred to the Disciplinary ity.
Programme:	
Student's I.C. No:	
Date of Submission:	

SECTION A [TOTAL: 40 MARKS]

READING COMPREHENSION

Read carefully the text below and answer **ALL** the following questions.

New AI Regulations Are Coming. Is Your Organization Ready? by Andre Burt April 30, 2021

- 1. Over the last few weeks, regulators and lawmakers around the world have made one thing clear: New laws will soon shape how companies use artificial intelligence (AI). In late March, the five largest federal financial regulators in the United States released a request for information on how banks use AI, signalling that new guidance is coming for the finance sector.
- 2. For companies adopting AI, the dilemma is clear: On the one hand, evolving regulatory frameworks on AI will significantly impact their ability to use the technology; on the other, with new laws and proposals still evolving, it can seem like it's not yet clear what companies can and should do. The good news, however, is that three central trends unite nearly all current and proposed laws on AI, which means that there are concrete actions companies can undertake right now to ensure their systems don't run afoul of any existing and future laws and regulations.
- 3. The first is the requirement to conduct assessments of AI risks and to document how such risks have been minimized or resolved. A host of regulatory frameworks refer to these types of risk assessments as "algorithmic impact assessments" also sometimes called "IA for AI" which have become increasingly popular across a range of AI and data protection frameworks.
- 4. Indeed, some of these types of requirements are already in place, such as Virginia's Consumer Data Protection Act signed into law last month, it requires assessments for certain types of high-risk algorithms. In the EU, the GDPR currently requires similar impact assessments for high-risk processing of personal data.
- 5. Unsurprisingly, impact assessments also form a central part of the EU's new proposal on AI regulation, which requires an eight-part technical document for high-risk AI systems that outlines "the foreseeable unintended outcomes and sources of risks" of each AI system, along with a risk-management plan designed to address such risks. The EU proposal aligns with the impact assessments required in a bill proposed in 2019 in both chambers of Congress called the Algorithmic Accountability Act. Although the bill languished on both floors, the proposal would have mandated similar reviews of the costs and benefits of AI systems related to AI risks.

SECTION A (CONTINUED)

- 6. While the specific requirements for impact assessments differ across these frameworks, all such assessments have the two-part structure in common: mandating a clear description of the risks generated by each AI system and clear descriptions of how each individual risk has been addressed. Ensuring that AI documentation exists and captures each requirement for AI systems is a clear way to ensure compliance with new and evolving laws.
- 7. The second trend is accountability and independence, which, at a high level, requires both that each AI system be tested for risks and that the data scientists, lawyers, and others evaluating the AI have different incentives than those of the frontline data scientists. In some cases, this simply means that AI be tested and validated by different technical personnel than those who originally developed it; in other cases (especially higher-risk systems), organizations may seek to hire outside experts to be involved in these assessments to demonstrate full accountability and independence. Either way, ensuring that clear processes create independence between the developers and those evaluating the systems for risk is a central component of nearly all new regulatory frameworks on AI.
- 8. The FTC has recommended that companies "embrace" accountability and independence and commended the use of transparency frameworks, independent standards, independent audits, and opening data or source code to outside inspection.
- 9. The last trend is the need for continuous review of AI systems, even after impact assessments and independent reviews have taken place. This makes sense because AI systems are brittle and subject to high rates of failure, AI risks inevitably grow and change over time meaning that AI risks are never fully mitigated in practice at a single point in time.
- 10. For this reason, lawmakers and regulators alike are sending the message that risk management is a continual process. In the eight-part documentation template for AI systems in the new EU proposal, an entire section is devoted to describing "the system in place to evaluate the AI system performance in the post-market phase".
- 11. For companies adopting AI, this means that auditing and review of AI should occur regularly, ideally in the context of a structured process that ensures the highest-risk deployments are monitored the most thoroughly. Including details about this process in documentation who performs the review, on what timeline, and the parties responsible is a central aspect of complying with these new regulations.
- 12. There are a host of ways to regulate AI systems from explainability requirements for complex algorithms to strict limitations for how certain AI systems can be deployed. Indeed, lawmakers and regulators have still not even arrived at a broad consensus on what "AI" is itself, a clear prerequisite for developing a common standard to govern AI. Diverging definitions of artificial intelligence are simply one among many signs that we are still in the early stages of global efforts to regulate AI.

SECTION A (CONTINUED)

- 13. But even in these early days, the ways that governments are approaching the issue of AI risk have clear commonalities, meaning that the standards for regulating AI are already becoming clear. So organizations adopting AI right now and those seeking to ensure their existing AI remains compliant need not wait to start preparing.
- Q1. <u>Identify ONE (1) word</u> which carries the similar meaning based on the context. Write your answers in the space provided (ANS) below.

(a)	define (paragraph 1)	(1 mark)
(b)	core (paragraph 2)	(1 mark)
(c)	to chronicle/record (paragraph 3)	(1 mark)
(d)	support (paragraph 5)	(1 mark)
(e)	pointed out (paragraph 6)	(1 mark)
(f)	prove (paragraph 7)	(1 mark)
(g)	fragile (paragraph 9)	(1 mark)
(h)	dedicated (paragraph 10)	(1 mark)
(i)	implementation (paragraph 11)	(1 mark)
(j)	dividing (paragraph 12)	(1 mark) [Total: 10 marks]

SECTION A (CONTINUED)

- Q2. What are the challenges faced by banks in the U.S. when abiding to the government's rules and regulations for using AI? (5 marks)
- Q3. According to the passage, what could be the rules and regulations set by the government applicable to the use of AI? (Provide at least **THREE** (3) with details) (9 marks)
- Q4. Name **ONE** (1) of the laws related to using AI. Give details about the specific law. (4 marks)
- Q5. In your opinion, what possible risks would be faced by companies when they become highly dependent on AI? Provide **THREE** (3) points and elaboration of the points.

 (6 marks)
- Q6. If you were one of the lawmakers, what law would you suggest the government to impose to guide the use of AI? Please describe the details about the law. (6 marks)

[Total: 40 marks]

SECTION B [TOTAL: 30 MARKS]

REPORT WRITING

Answer **THE** question. Write your answer in the space provided.

Q1. You are one of the members of the Malaysian Information Technology Research Centre (MITRC). Due to the Covid-19 pandemic, your research centre is working on a 3-day virtual conference related to the usage of information technology during the pandemic. As the chairperson of the organizing committee, write a progress report to the Chairperson of MITRC, Mr. Johan Abdullah to give some updates on the preparation of the e-conference that will take place from 15 October 2021 to 17 October 2021. Include details on the tasks completed and also the remaining tasks as well as any hindrances you have faced so far.

Your report should include the following points:

Completed Work

Keynote Speakers

On-going work

Publicity

Future Work

E-certificates for the presenters and participants

Add another **THREE** (3) relevant points about the event preparation and provide sufficient elaboration. The body of the report should not be more than 250 words.

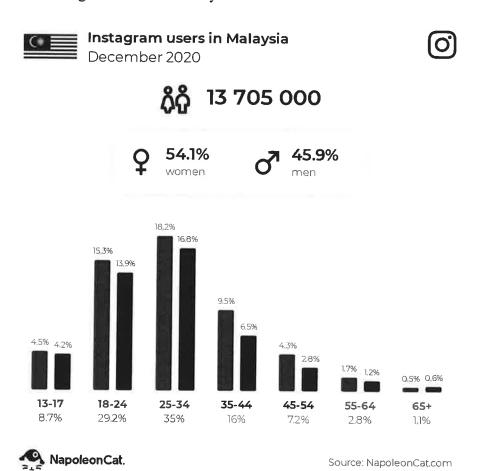
[Total: 30 marks]

SECTION C [TOTAL: 30 MARKS]

INTERPRETATION OF GRAPHICAL INFORMATION

Answer THE question. Write your answer in the space provided.

Q1. The following bar chart shows the profile of Instagram users in Malaysia. Interpret the chart accordingly in **not more than 250 words.** Explain the information by describing and making comparisons between the statistics in the graph. You are required to provide logical and sound analysis.



Please use Times New Roman, font size 12 and 1.5 spacing. Write the total of words count at the bottom right of your essay with brackets.

[Total: 30 marks]