TMA01 - 4th Industrial Revolution & Disruptive Technologies

Requirements before you attempt questions	- No flowery language. It is NOT allowed. Go directly to the point with each question. - Get to the point, focus on key questions asking for, highlight key facts, draw brief conclusions from questions - Do not write in unnecessary essay style or describe questions or describe concepts we learnt as **we have limited word count** - Do not review case facts too often unless they support your reasoning and argumentations - Make very sure that you back all arguments with numbers and case facts - be very specific and concise - Justify your recommendations using both qualitative and quantitative assessment whenever applicable - Study Module PDF, Seminar Slides and Case Studies / Supplements first before attempting questions - APA 7 Format (Provide 10 to 20 references if required) relevant journals, online or offline articles, relevant legible websites - Please label each question for example Q1(a), (b) very clearly from the assignment as many previous writers did not label it properly - If any question require tables or images or source images, please feel free to do to support question - Please follow the exact words for marks provided on last column **Do not include any citations coming from authors from India, or Pakistan or Bangladesh or Africa (Very important) because it is considered ghost writers! If possible use more legit and common references from International including Singapore** **Do not post to any course hero / educational-sharing websites WITHOUT any Boomessays or my permission as it will have 100% plagiarism as I am using Turnitin to submit.**	
Word Limit	**Max 3600 (13 pages estimated)**	

	Prepare a report not exceeding 3,600 words (excluding cover page and references) on the following:	
Material Provided	**1. IPM561 TMA01 July2021.pdf** (It is TMA 01 assignment) **2. IPM561 - 4th Industrial Revolution_normal_with_links.pdf** (It is all full slides with links). You need to study and read all slides first before attempting this TMA01 assignment **3. 3. IPM561 - 4th Industrial Revolution_with explainations.pdf** (It is slides with full explanations but links cannot work). You can refer to these slides first before resuming back to 2. 2 and 3 are very important references for you to read before attempt this assignment	
Q 1(a)	(a) The Fourth Industrial Revolution is going to force transformation across businesses. Select a business sector that you are familiar with, for example: healthcare, banking, logistics, hospitality, F&B, facilities management, retail, education, etc. Evaluate the business sector that you have selected by briefly describing the customers they serve, size of market, competitiveness and stage of growth/decline. (6 marks) Note to Writer: You **need to let me know** which few business sector **first** which Singapore/Asia is mostly familiar with. You need to decide to choose ONE and evaluate selected business sector by describing asked questions	**6 marks** **(220 words)**

Q 1(b)	(b) Based on the business sector which you have described in the previous section, examine the areas of technology (e.g. data analytics, Artificial Intelligence, drones, 3D-printing, etc.) that you envisage would likely disrupt this business sector locally as well as globally. Identify any *three (3)* disruptive technologies that has been discussed to elaborate your answer. (21 marks) Note to Writer: You need to study slides I provided first then do in-depth research in trends 2020/2021 for your selected business sector that likely disrupt this business sector **LOCALLY** (*SINGAPORE*) and GLOBALLY to elaborate your answer	**21 marks** (760 words)
Q 1(c)	(c) With reference to the business sector discussed in Q1(b), outline *one (1)* key issue that Covid-19 has inflicted towards this sector and illustrate how technology can be deployed to address it. (7 marks) Note to Writer: You need to do indepth research regarding COVID-19 impact to find 1 key issue inflicted towards this sector and illustrate how technology will be deployed to address it. Maybe you need to source good example of technology image/flow or any to supplement this answer	**7 marks** (260 words)
Q 1(d)	(d) Select a company that you are familiar with. Describe briefly the company you selected. Assess the business of this company from the perspectives of inputs, process and customer engagement (based on the illustration below/next page).	**18 marks** (650 words)

Where is your focus going to be?
Are there any pain points to address?

Inputs

- Is hiring an issue?
- Is retention of staff an issue?
- Is job too repetitive, risky, unattractive?
- Is sourcing of materials challenging?
- Is external supply chain and storage an issue?
- Can collaboration with eco-system improve?

Operations & Processes

- Is efficiency and speed a challenge?
- Can robotics or IOT be introduced?
- Is insights and information difficult to obtain?
- Is operations cost increasing due to human resource, errors, handling, idle time?
- Is there a lot of repetitive reporting and documentation?
- Can financing model be improved?

Front End – Customer & Market Engagement

- Are there customers demanding for faster and better service?
- Are competitors offering better service?
- Is product facing accessibility challenges?
- Are there new markets to explore with new business models?

Identify *one (1)* pain point or opportunity within each of these sections that you feel strongly can be addressed by disruptive technologies. Discuss and demonstrate with examples to support your answer.

(18 marks)

	Note to Writer: You study this question and table first before you **need to let me know** which few company **first** which Singapore/Asia is mostly familiar with. You need to decide to choose ONE company locally or Singapore very familiar with and identify one 1 pain point or opportunity within **EACH OF THESE SECTIONS (1. *Inputs, 2. Operations & Processes, 3. FrontEnd - Customer & Marketing Engagement*)** that can be addressed by disruptive technologies. Look at discuss and demonstrate with examples to support your answer.	
Q2 (a)	**Question 2** (a) Appraise how the various technologies introduced could create an impact to the society that we live in. Consider the social impact from the perspective of healthcare, education, career, living conditions, aging population, transportation, social divide, etc. Provide *two (2)* positive and *two (2)* negative impacts that could surface. (32 marks) Note to Writer: You need to study this question very carefully as it carries 32 marks (1160 words). Focus on Singapore related and find out the social impact what Singapore faced. Provide 2 positive and 2 negative impacts that Singapore has. Please look at the perspective of healthcare, education, career, living conditions, aging population, transportation, social divide etc etc. There is a lot of social impact research Singapore has. Maybe a good chance to do research on Persons with Disabilities living in Singapore especially persons with hearing impairement	**32 marks** **(1160 words)**
Q2 (b)	(b) Analyse and recommend *two (2)* potential solutions that would help to overcome the *two (2)* negative impacts that you had highlighted. (16 marks)	**16 marks** **(580 words)**

| | Note to Writer: Remember this Question 2(b) is related to 2(a) that you provided 2 negative impacts then analyse and recommend 2 potential solutions to overcome negative impacts you highlighted | |