Due : 7 May 2023 (Sunday) by 11.59 pm
Marks : 10 points
Submission method:
- File upload to **GOOGLE CLASSROOM** (class code : 5ias2y5)
- Report **must be prepared in pdf**
- Filename must be in the following format: **ID – NAME**.
- **ID** is student matric number
- **NAME** is student's full name

Note
This assignment has the following mapping:
PO 1 : Apply knowledge of mathematics, natural science, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to the solution of complex engineering problems.
CO 1 : Ability to analyse the properties of pure substance.

Instructions / to do list
1. Show all works/procedural analysis. You will lose marks for incomplete submission.
2. Read and signed the **student statement**, acknowledging that you have read understand the repercussion of plagiarism during early of the semester.
3. Any work that is caught under plagiarism will be awarded with 0 mark.
3. Your works must be map to the above PO and CO.
4. This assignment needs to be submitted in **a single pdf file via the Google Classroom**.
5. You also can prepare your work using any suitable software.
6. The due date for this assignment is on **7 May 2023 (Sunday) by 11.59 pm**. For each working day **late submission, 10 %/day will be deducted** from the obtained marks. Please take note that, it takes time especially to upload large size document. So, don't wait until very last moment.

IMPORTANT NOTE

- *Marks will be given based on the **novelty (originality)** of your answer.*

- *If you choose an example that most students did not select for their work, you **will most likely** get higher marks due to your effort and complexity of the example.*

- *Please put your best effort to prepare this assignment.*

To determine the missing properties of a pure substance within a given table section (as shown in the Figure 1 below) on Google Classroom, first identify the assigned question. If your name is not on the given list, submit your name via the provided Google Form, and you will receive your question later. For each missing property, demonstrate the step-by-step process used to obtain it. When selecting tables to determine the missing properties, provide an explanation for your choices. Please include your question number and ensure that you answer the correct question, as answering the wrong question will result in a 25% reduction in your marks.

No	Question	Name	Matrix	substance water, H₂O	substance refrigerant-134a	Temperature, T [°C]	Pressure, P [kPa]	Mass, m [kg]	Volume, v [m³]	Specific volume, v [m³/kg]	Specific internal energy, u [kJ/kg]	Specific enthalpy, h [kJ/kg]	Specific entropy, s [kJ/kg·K]	quality, x [-]	phase description [-]	Note [-]
Example	3-127	Lecturer	-	x		120.21	200	-	240	0.66460	2023.0	2155.91	6.8755	0.75	Saturated liquid-vapor mixture	25% mass is liquid, 75% mass is vapor
1	3-21(a)	AFIQAH BINTI AHMAD RADHI	221110869	x		140		-	-	0.035						-
2	3-21(b)	AGHILAN A/L PATHMASRITHARAN	221112901	x			550	-	-						Saturated liquid	-
3	3-21(c)	AHMAD DANIEL BIN MOHD ZAIBIDI	221112902	x		125	750	-	-							-
4	3-21(d)	AHMAD HAIQAL BIN FAKARUDDIN	221110870	x			300	-	-	0.140						-
5	3-22(a)	AHMAD RIFQI BIN ZAHARI	221110872	x			200	-	-					0.70		-
6	3-22(b)	AINI DIANA BINTI ABD RANI	221110874	x		140		-	-			1800.0				-
7	3-22(c)	ANIS BINTI YUNUS	221110875	x			950	-	-					0.00		-
8	3-22(d)	ARUL ANAND RAJ A/L ANTHONY RAJ	221110876	x		80	500	-	-							-
9	3-22(e)	BAVITHIRRAN A/L MUTTHUKKUMARAN	221112904	x			800	-	-			3162.2				-
10	3-23(a)	CHAN ZI WEI	221110877		x		600	-	-							-
11	3-23(b)	CHANG CHUN SIANG	221110878		x	-10		-	-			180.00				-
12	3-23(c)	EMMIR NOOR HANIFF HAIQAL BIN AHMAD YUSRIMAN ARIEF	221110884		x	-14	500	-	-					0.60		-
13	3-23(d)	EUNICE VELLA ANAK SOW	221110885		x		1200	-	-			300.63				-
14	3-23(e)	FOO YONG YI	221110886		x	44		-	-					1.00		-
15	3-24(a)	FRANKIE KHOR	221110887		x	20		-	-			95.00				-
16	3-24(b)	GOH YONG HAN	221110888		x	-12		-	-						Saturated liquid	-
17	3-24(c)	HAFIY AHMAD FADHLI BIN HAN	221110889		x		400	-	-			300.00				-
18	3-24(d)	INDARPRASATH A/L PRABAGAR	221110892		x	8	600	-	-							-
19	3-26	INSYIRAH NURWAHIDAH BINTI IBRAHIM	221110893		x	-10	90.4	0.85	-							-
20	3-26	KHOO TENG XIAN	221110894		x	15	90.4	0.85	-							-
21	3-27	KIRTHIKA A/P SIVAN	221110895		x	-30		10.00	1.12							-

Figure 1 : Properties of pure substance

Answer scheme:

- Successfully identify at least 2 intensive properties [1 Mark]
- Successfully judge the corresponding phase of substance [1 Mark]
- Successfully identify all the needed properties tables [1 Mark]
- Show/display all the related tables in the calculation [1 Mark]
- Successfully determine any FOUR (4) missing properties in the table [4 Marks]
- Properly display the involved formula in all the involved calculation [1 Mark]
- Show and properly use the units for each related properties in calculation [1 Mark]