

ACADEMIC YEAR 2022 - 2023

Program	Year	Semester	Paper
PE	1	1	MAIN

MODULE NAME:	ENGINEERING DRAWING		
MODULE CODE:	TED	EXAM DATE:	20-Dec-2022
TEACHER'S NAME:	Dr Habeebllah	DURATION:	2 hrs.

Questions to be answered on: ☒ Space provided on the question paper	Allowed requirements: Pen, Pencil & Calculator	Number of pages (Incl. cover page): 5
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Points of attention:

- For each question, the maximum earned points are mentioned between brackets at the end of each question.
- Write very clearly! Answers that are not readable are not marked and don't get points!
- Make sure your answers are written to the point.
- All answers should be written **in English**.
- Write all the answers in **blue or black pen only**.
- Use the **pencil** only for **diagrams & graphs**.
- Show all the calculation steps in the given space.
- When finished submit the question paper, together with the answer scripts and the signed cover page to the invigilator.
- Any cheating/copying may result in an instant failing of the examination.

STUDENT NAME: STUDENT ID:	FINAL MARKS <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 50%; height: 50px;"></td> <td style="width: 50%; text-align: center; font-size: 24px; font-weight: bold;">40</td> </tr> <tr> <td style="height: 50px;"></td> <td style="text-align: center; font-size: 24px; font-weight: bold;">10</td> </tr> </table>		40		10
	40				
	10				

Number of answer scripts:.....

Invigilator:.....

Student's signature:

Time of receipt:.....

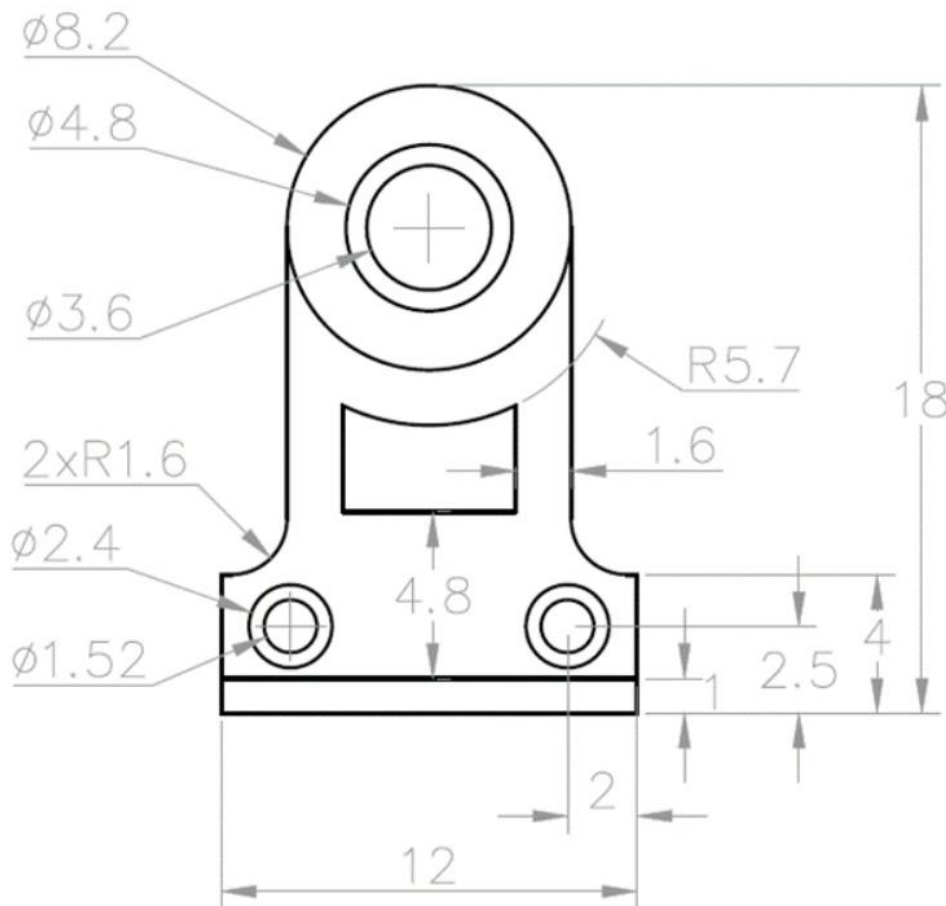
Instructions

- All drawings should be reproduced using AutoCAD software
- All the three diagrams in the question paper should be drawn in a single AutoCAD file
- The name given to your AutoCAD file should be your_first_name.dwg, for example mohammed.dwg
- Final submission should be done on moodle and you will only be able to submit only one file

ANSWER ALL THE QUESTIONS (40 marks)

Question 1 [10 marks]:

Reproduce the geometry shown in the figure below using AutoCAD software:

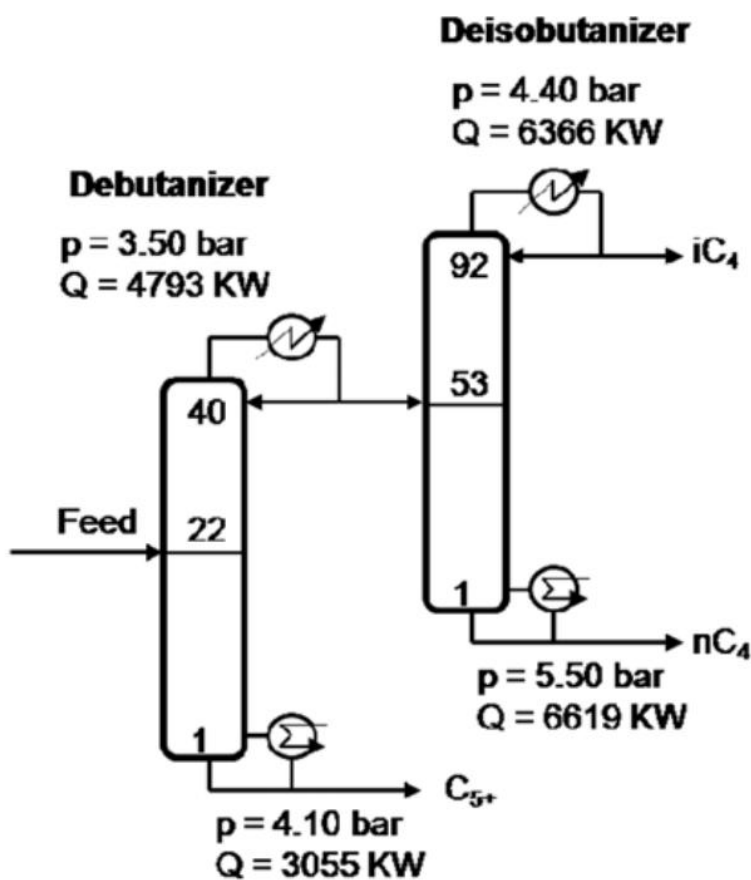


(Shoukry and Pandey, 2020)

Question 2 [20 marks]:

A distillation column is generally used to separate volatile compounds from non-volatile compounds. The diagram below represents the application of distillation column for the separation of both normal butane and iso-butane from a mixture of hydrocarbons.

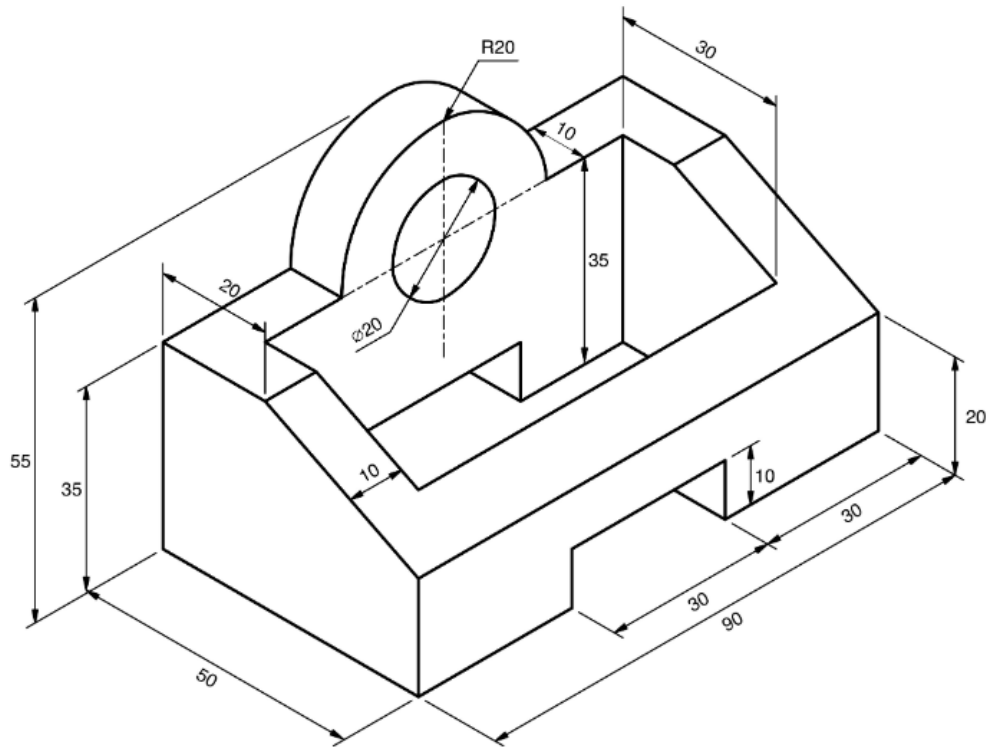
- Reproduce this diagram using AutoCAD software
- Briefly explain this diagram



(Long and Lee, 2013)

Question 3 [10 marks]:

Reproduce the following isometric drawing below (Pinterest, 2021) using AutoCAD software:



Dimensions in mm

References

- Long, N.V.D. and Lee, M.Y. (2013) 'Design and optimization of heat integrated dividing wall columns for improved debutanizing and deisobutanizing fractionation of NGL', *Korean Journal of Chemical Engineering*, 30(2), pp. 286–294.
- Shoukry, Y. and Pandey, J. (2020) *Practical Autodesk AutoCAD 2021 and AutoCAD LT 2021: A no-nonsense, beginner's guide to drafting and 3D modeling with Autodesk AutoCAD*. Packt Publishing Ltd.
- Pinterest, 2021. *Pinterest*. [Online] Available at: <https://www.pinterest.com/pin/632263235175685971/> [Accessed 14 12 2022].