



UNIVERSITY COLLEGE TATI (UCTATI)

FINAL EXAMINATION QUESTION BOOKLET

COURSE CODE	: BME 3073
COURSE	: ADVANCED CAD & MODELING
SEMESTER/SESSION	: 2-2024/2025
DURATION	: 3 HOURS

Instructions:

1. This booklet contains **2** sections. Answer **ALL** questions.
2. All answers should be drawn in **INVENTOR** software.
3. Save your drawing files in to the created folder **20B0XXXX_FINAL BME3073_ADV CAD MODELING_NAME** (20B0XXXX is your matrix number).
4. Send your folder/file to the email address given below.
(syahrir@uctati.edu.my)

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

THIS BOOKLET CONTAINS 6 PRINTED PAGES INCLUDING COVER PAGE

INSTRUCTION: Submit your answer using EMAIL. Save your drawing as your Name and Metric No., for example, **A100XXXX_FINALBME3073_HAIKAL BIN ISMAIL**

SECTION A:

Reproduce all the solid models of the following parts as shown in **Appendix A**:
All dimensions are in **millimeters**.

1. Base Plate (10 Marks)
2. Geneva wheel (20 Marks)
3. Pin (5 Marks)
4. Key (5 Marks)
5. Rotor (20 Marks)
6. Button (5 Marks)

Note:

- Place all the files (.prt) in the folder that you renamed.
- You will be graded on the quality of the modelling process for all the solid models, i.e., **sketches made, part orientation, and the accuracy of the solid models**.

SECTION B:

Illustrate the unexploded and exploded 3D assembly models of the Geneva Wheel assembly from all the solids drawn earlier in section A, referring to *Appendix B*.

You will be graded on the quality of the final assembly 3D model based on these criteria:-

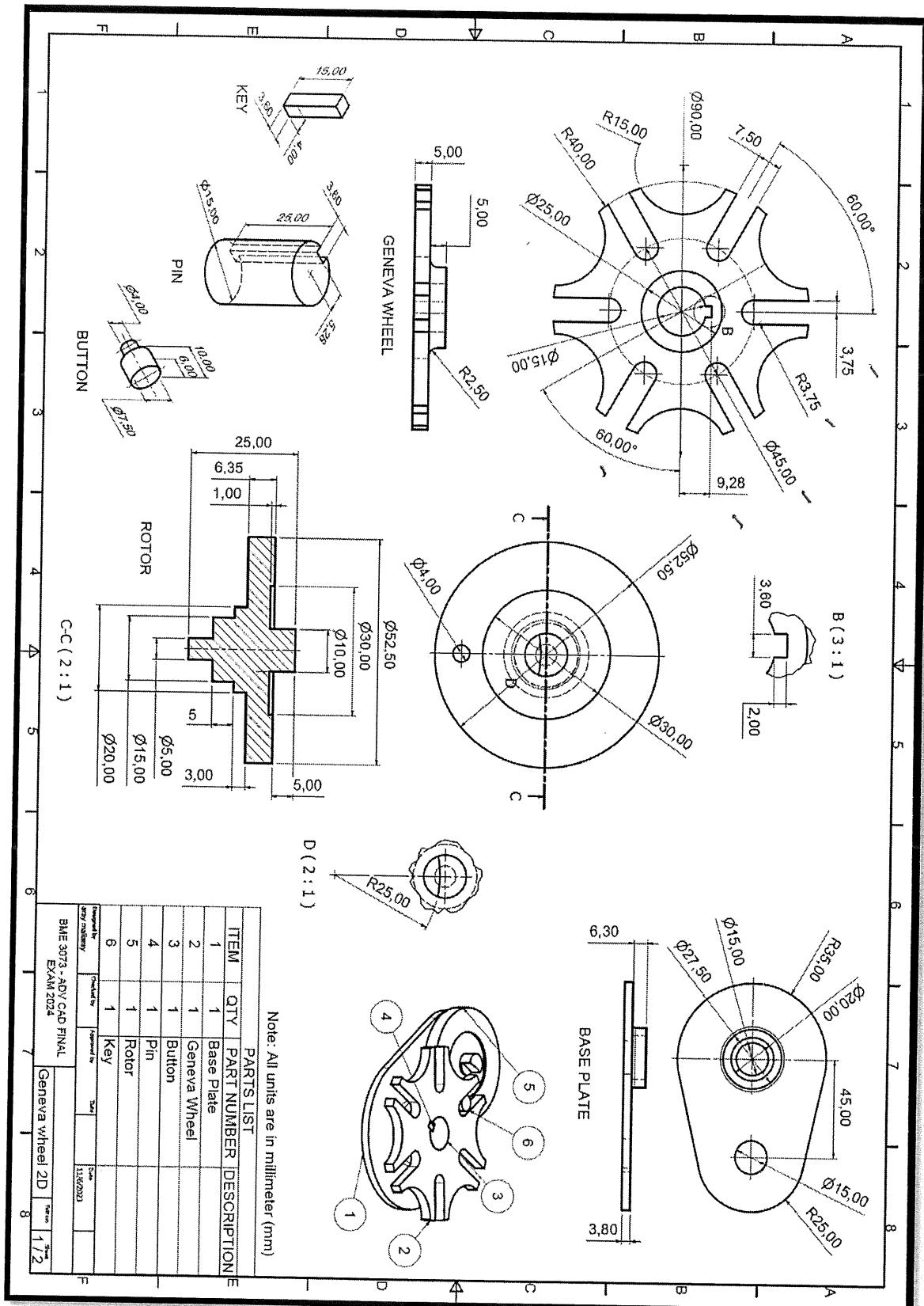
1. Number of constraints required (15 Marks)
2. Proper Orientation of unexploded 3D assembly (10 Marks)
3. Proper Orientation of exploded 3D assembly (10 Marks)

Note:

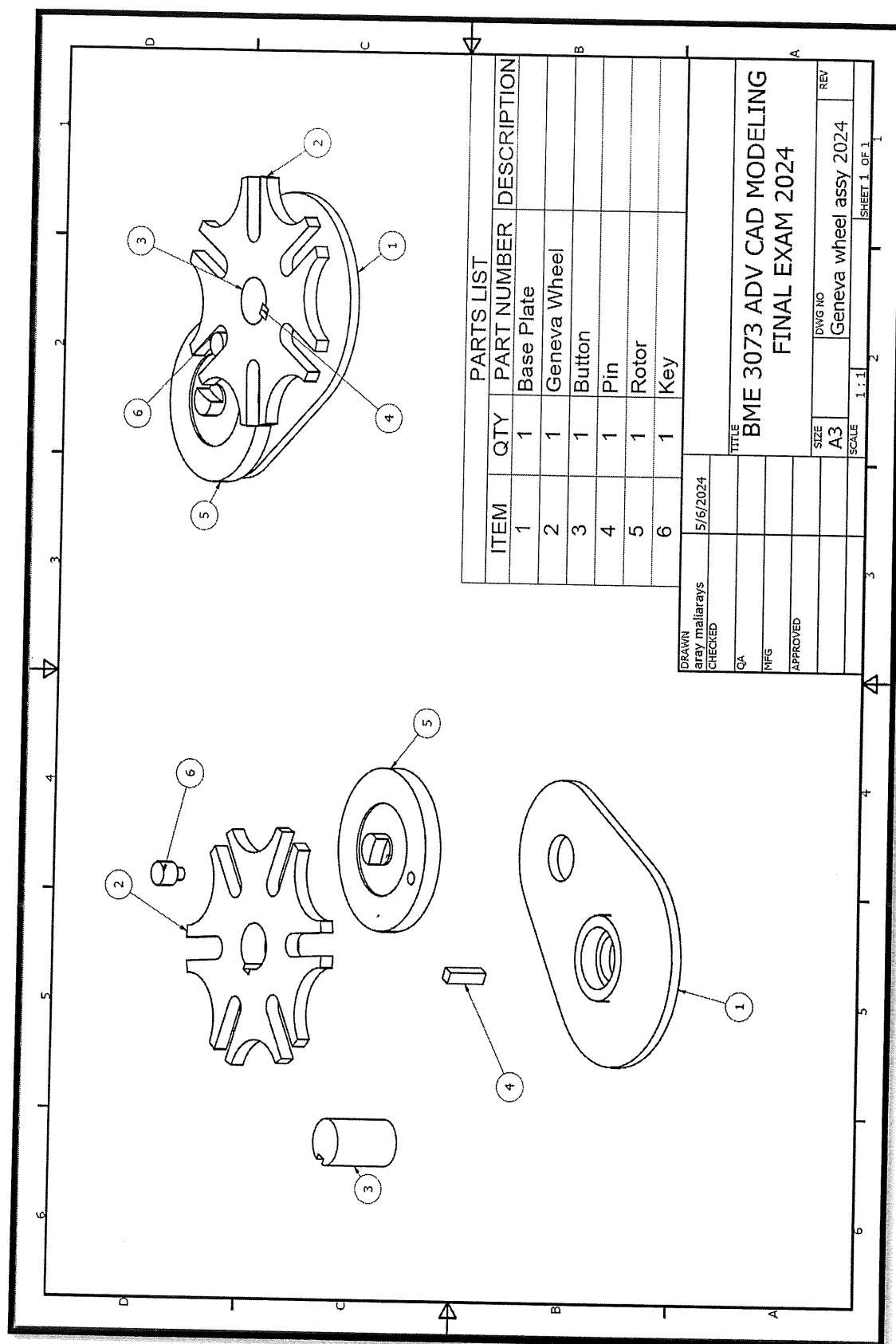
- Save the assembly file and picture files as (Geneva_assy.asm) and (Geneva_assy.jpg) in the same folder with the other solids model (.prt).

-----*End of question*-----

APPENDIX A



APPENDIX B



-----END OF QUESTION-----

RUBRIC

Criteria	Marks
All questions answered will be marked according to the answer scheme.	/100