

Team Name:

Machines C - GGSO

Team Number:

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### Section A (70 points)

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_

6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_ 9. \_\_\_\_\_ 10. \_\_\_\_\_

11. \_\_\_\_\_ 12. \_\_\_\_\_ 13. \_\_\_\_\_ 14. \_\_\_\_\_ 15. \_\_\_\_\_

16. \_\_\_\_\_ 17. \_\_\_\_\_ 18. \_\_\_\_\_ 19. \_\_\_\_\_ 20. \_\_\_\_\_

21. \_\_\_\_\_ 22. \_\_\_\_\_ 23. \_\_\_\_\_ 24. \_\_\_\_\_ 25. \_\_\_\_\_

26. \_\_\_\_\_ 27. \_\_\_\_\_ 28. \_\_\_\_\_ 29. \_\_\_\_\_ 30. \_\_\_\_\_

31. \_\_\_\_\_ 32. \_\_\_\_\_ 33. \_\_\_\_\_ 34. \_\_\_\_\_ 35. \_\_\_\_\_

**Section B (90 points)**

1. (a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

(e) \_\_\_\_\_

(f) \_\_\_\_\_

2. Space given on the following page.

3. (a) \_\_\_\_\_

(b) \_\_\_\_\_  
\_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

4. (a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_  
\_\_\_\_\_

5. (a) i. \_\_\_\_\_

ii. \_\_\_\_\_

iii. \_\_\_\_\_

iv. \_\_\_\_\_ N

(b) i. \_\_\_\_\_  $\text{ms}^{-1}$ ii. \_\_\_\_\_  $\text{ms}^{-1}$ 

iii. \_\_\_\_\_ %

iv. \_\_\_\_\_ cm

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2.