

Team Name:

Machines C - DUSO 2021

Team Number:

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## Section A (60 points)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
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14. \_\_\_\_\_
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16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_
21. \_\_\_\_\_
22. \_\_\_\_\_
23. \_\_\_\_\_
24. \_\_\_\_\_
25. \_\_\_\_\_
26. \_\_\_\_\_
27. \_\_\_\_\_
28. \_\_\_\_\_
29. \_\_\_\_\_
30. \_\_\_\_\_

**Section B (90 points)**

1. (a) \_\_\_\_\_
- (b) \_\_\_\_\_ %
- (c) \_\_\_\_\_ J
- (d) \_\_\_\_\_
- \_\_\_\_\_

2. *Space given on the following page.*

3. (a) \_\_\_\_\_ kg
- \_\_\_\_\_ N
- (b) \_\_\_\_\_
- (c) \_\_\_\_\_ N
- (d) \_\_\_\_\_  $\text{m s}^{-2}$
- \_\_\_\_\_

4. (a) \_\_\_\_\_
- (b) \_\_\_\_\_
- (c) i. \_\_\_\_\_  $\text{m s}^{-1}$
- ii. \_\_\_\_\_
- \_\_\_\_\_
- (d) i. \_\_\_\_\_  $^{\circ}$
- ii. \_\_\_\_\_ N
- iii. \_\_\_\_\_
- \_\_\_\_\_

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2.