



Complete, fold and seal
(see note 2 below)

SURNAME: *Conte*

FORENAME(S): Aigoo

12 Pages

Instructions to Candidates

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

1	Student Number	COR18837268
2	Title of Examination Paper	Dynamics
3	Module Code	GOEE4002
4	Date and Time of Examination	24/5/23
5	Examination Venue	Tycoch, main hall
6	Seat Number	C4
7	Number of Answer Books handed in	

[illegible]

RK

$$6.5/60 = 11\%$$

(Gweler yr ochr arall am y fersiwn Cymraeg)

Q1. 1. 50 N

10 kg

10 N

$$\frac{20}{50} \times 10 = 4 \text{ a}$$

$$\left(\frac{25 + 10}{2} \right) \times 5 = 87.5$$

x

2a. $\frac{25}{10} \times 5 = 12.5 \text{ V}$

x

b. ~~$25 \text{ m/s} \times 10 \text{ m/s}^2 = 250 \text{ m}$~~

$$25 + 10 \times 5 = 75 \text{ m}$$

>

2.

T = Time (s) = seconds

F = Force

$\Sigma =$

Pi = Definition of a path

$\Delta i =$ Definition of a forward gain.

x



Q.



2.

$$\begin{aligned} FP &= G_1 G_2 G_3 G_5 \\ F P_2 &= G_1 G_2 G_3 G_5 \\ L_1 &= -G_1 G_2 H_1 \\ L_2 &= -G_3 G_5 H_3 \end{aligned}$$

$$L2 = -G3 G5 H3$$

$$L_3 = G_1 G_2 G_3 H_2 \quad \checkmark$$

$$L_4 = G_3 G_4$$

$$NTL_1 = 515241$$

$$N_{762} = 10354$$

$$\frac{Y(s)}{R(s)} = \frac{1}{(s^2 + 6s + 5) + (s^2 + 2s + 1) + (s^2 + 4s + 4)}$$

$$\chi(g) = \frac{1}{(g_1 g_2 g_3 g_4) + (g_1 g_2 g_3 g_5) + (g_1 g_2 g_4 g_5) + (g_1 g_2 g_3 g_4 g_5) + (g_1 g_2 g_4 g_5) + (g_1 g_2 g_3 g_4 g_5)}$$



Examiner Only