**ME370: ADAMS LAB**



**Department of Mechanical Engineering,**

**IIT Bombay**



**Session 8 Report**

**Group / Section:** A8

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**Given Information**

|  |  |  |  |  |  |
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|  | Information for Q1 | | | |  |
| Equation | A | B | m1 | m2 |
|  | 3 | 3 | 5 | 1 |

|  |  |  |  |  |  |  |  |  |  |
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|  | Information for Q2 | | | | | | | | |
| Given Equation |  | | | | | | | | |
| Theoretical 2-DOF State Space |  | | | | | | | | |
| Initial Conditions |  | |  | |  | |  | | |
| Parameters | c1 | c2 | c3 | k1 | k2 | k3 | m1 | m2 |  |
| Values | -3 | -1 | -1 | -3 | -2 | -1 | 1 | 2 | 3 |
| Forces |  | | | |  | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Information for Q3 | | | | | | | | | |
| Parameters | A | B | m1 | m2 | k1 | k2 | k3 | c1 | c2 | c3 |
| Values | 3 | 3 | 5 | 1 | 2 | 3 | 0 | 0 | 0 | 0 |
| Initial Conditions |  | | |  | | |  | |  | |

**Question 1 (1-DOF Mechanism)**

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| **ISOMETRIC VIEW OF 1-DOF MECHANISM** |
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| **DISPLACEMENT OF CENTRE OF MASS FROM t=0 TO t=0.25** |
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**Question 2 (2-DOF Mechanism)**

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| **ISOMETRIC VIEW OF 2-DOF MECHANISM** |
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| **TIME RESPONSE OF 2-DOF SYSTEM**  **WITH EQUATIONS OF MOTION** |
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**Question 3 (Composite Spring Mass System)**

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| **ISOMETRIC VIEW OF COMPOSITE SYSTEM** |
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| **DISPLACEMENT OF MASSES WITH TIME** |
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—X—X—X—X— X—X—X — X—**END**— X—X— X—X— X—X— X—X—