**ME370: ADAMS LAB**

**Department of Mechanical Engineering,**

**IIT Bombay**



**Session 4 Report**

**Group / Section:** A8

**Name:** Ameya Halarnkar

**Roll Number:** 200020023



**Date:** February 17,2023

**Given Information**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Lengths | | | | | |
| Roll Number | BE | CE | BF | CF | BG | CG |
| 200020023 | 182 | 449 | 325 | 313 | 193 | 191 |

**Question 1 (Spur Gear Train)**

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| **ISOMETRIC VIEW OF SPUR GEAR TRAIN** |
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| **FRONT VIEW OF SPUR VIEW TRAIN** |
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**Question 2 (Multiple Gear Train)**

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| **FRONT VIEW OF MULTIPLE GEAR TRAIN** |
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| **ISOMETRIC VIEW OF MULTIPLE GEAR TRAIN** |
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| **VERTICAL DISPLACEMENT OF F1 VS**  **VERTICAL DISPLACEMENT OF A1** |
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| **VERTICAL DISPLACEMENT OF F1 VS**  **HORIZONTAL PLANE DISPLACEMENT OF A1** |
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**Question 3 (Planetary Gear System, Sun Stationary)**

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| **VERTICAL DISPLACEMENT OF F1 VS**  **VERTICAL DISPLACEMENT OF AR1** |
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**Question 4 (Planetary Gear System, Sun Moving)**

**INPUTS:**

**2**

* Sun Gear was rotated at 0.5 degrees per second clockwise for 360 seconds.
* Arm was rotated with respect to Sun Gear at 1 degree per second clockwise for 360 seconds.

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| **ISOMETRIC VIEW OF**  **PLANETARY GEAR SYSTEM** |
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| **FRONT VIEW OF PLANETARY GEAR SYSTEM** |
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| **VERTICAL DISPLACEMENT OF P1 VS**  **VERTICAL DISPLACEMENT OF S1** |
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—X—X—X—X— X—X—X — X—**END**— X—X— X—X— X—X— X—X—