Mechanical Engineering Department

**ME304 Mechanical Engineering Design (1)**

**MIDTERM EXAM**

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| **Date(s): 6 Apr 2015G / 17 Jumada Al-Akhir 1436H**  **Day: Monday**  **Time: 7-9pm** | **Engineer:**  **Eng mohammed alanazi** |

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| **Student Info** | |  | **Exam Information** | |
| **Name (English)** | **SAMPLE SOLUTION SHEET** | **Total Marks** | **20** |
| **Name (Arabic)** | **SAMPLE SOLUTION SHEET** | **Number of Questions** | **3** |
| **Number** | **SAMPLE SOLUTION SHEET** | **Available Time** | **2 Hours** |

**EXAM RULES:**

1) Please **place your Identity Card on the desk in front of you** for identity confirmation.

2) All **mobile phones have to be switched off and put away from the student**.

3) This is a **CLOSED BOOK** Exam. All necessary charts provided.

4) **Only Non-Programmable Calculators Allowed**.

5) **Please Beware: Strong Anti-Cheating Policies Apply...**

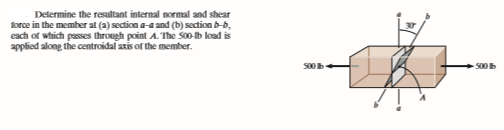
6) Once the exam time is finished, please hand-over your exam paper when asked for so without delay or it may not be received.

7) Answer in the answer book provided.

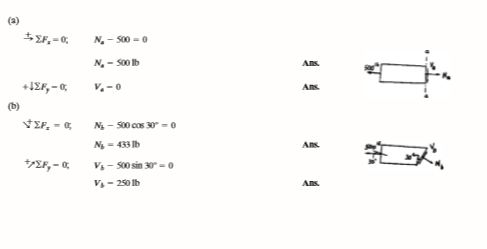
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| --- | --- |
| **Marks** | |
| **Q1** | **6** |
| **Q2** | **6** |
| **Q3** | **8** |
| **Total** | **20** |
| **Professor's**  **Signature** | **ALW** |

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| **For Official Use Only** | | |
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| **#** | **Questions** |
| **1** | Calculate the volumetric and mass flowrates of oil flowing inside a 2" diameter pipe at 0.25m/s?  Oil density is 850kg/m3. |

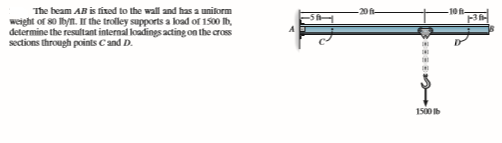
**Q/1:**

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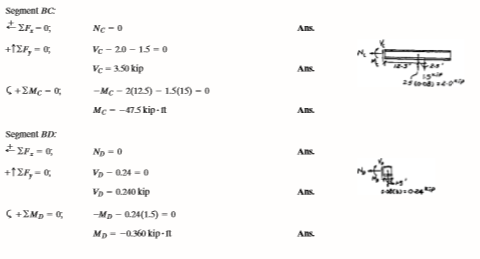
**Sol:**

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**Q/2:**

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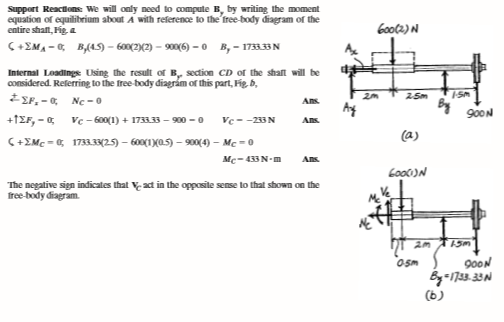
**SOL:**

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**Q/3:**

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**SOL:**

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