INSTRUCTIONS AND INFORMATION

1. The question paper consists of FOUR questions.
2. Answer ALL the questions.
3. All drawings are in third-angle orthographic projection unless otherwise stated.
4. All drawings must be drawn to scale 1:1, unless otherwise stated.
5. The questions must be answered on the answer sheets provided.
6. All the answer sheets must be re-stapled in numerical sequence and handed in irrespective of whether the question was attempted or not.
7. Time management is essential in order to complete all the questions.
8. Print your examination number in the block provided on every answer sheet.
9. All answers must be drawn accurately and neatly.
10. Any details or dimensions not given must be assumed in good proportion.

FOR OFFICIAL USE ONLY

MODERATED

MARK

1
2
3
4
TOTAL

FINAL CONVERTED
MARK

100

CHECKED BY

COMPLETE THE FOLLOWING:

EXAMINATION NUMBER

EXAMINATION NUMBER

EXAMINATION CENTRE

EXAMINATION CENTRE
ANIMAL (MECHANICAL)

Q1: On what plane was the view drawn?
Q2: How many parts does the assembly consist of?
Q3: What is the purpose of the cylinder head?
Q4: How many cylinders does the engine have?
Q5: What is the function of the cylinder head?
Q6: How many threads are there in the cylinder head?
Given: 

- The car remains in its original position for 1.5 s. 
- There is another equal period for the next 1.5 s. 
- There is a twelfth period for the next 60 s. 

The object moves with uniform motion in a straight line for 10 minutes before stopping.

The question asks to calculate the total distance the car has traveled over the 12 periods.

**Question 2.1: (CAAT)**
QUESTION 3: ISOEMETRIC DRAWING

[Sketch of an isometric drawing]

Given:

[Dimensions and annotations for the isometric drawing]

Instructions:

1. Show all necessary construction.
2. Correct the orthographic views of the isometrical object above.
3. Include dimensions at the isometric view shown in Fig. 6.
4. Include the oblique plane view of the isometrical object above.

Requirements:

[Additional requirements or notes]
# OVERHEAD SWIVEL PULLEY

## Parts List

<table>
<thead>
<tr>
<th>Part</th>
<th>Material</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bush</td>
<td>M4 Nut</td>
<td>1</td>
</tr>
<tr>
<td>Washer</td>
<td>M8</td>
<td>3</td>
</tr>
<tr>
<td>Washer</td>
<td>M10</td>
<td>2</td>
</tr>
<tr>
<td>Pin</td>
<td>M10</td>
<td>3</td>
</tr>
<tr>
<td>Collar</td>
<td>M10</td>
<td>4</td>
</tr>
<tr>
<td>Mounting Plate</td>
<td>M10</td>
<td>2 x 2</td>
</tr>
<tr>
<td>2 x 2 Chamber</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>6 x M10 Nuts</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

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**Note:**
- All dimensions are in mm.
- All parts are made of steel unless specified otherwise.
- All parts are metric size unless specified otherwise.
- All parts are made for a 16mm shaft diameter.

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**Questions:**

1. **Assembly Drawing**
   - 3D model of the pulley with dimensions.
   - Instructions for assembly.
   - Exploded view of the pulley components.
   - Schematic diagram of the pulley assembly.

2. **Technical Specification:**
   - Material specifications for each part.
   - Tolerance and finish requirements.
   - Load-bearing capacity of the pulley.

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**Engineers:**

[Signature]

[Date]

[Company Name]