INSTRUCTIONS AND INFORMATION

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

**Q U E S T I O N S**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the purpose of drawing B?</td>
<td>-</td>
</tr>
<tr>
<td>2. What is the size of the diameter on part 1?</td>
<td>-</td>
</tr>
<tr>
<td>3. What is the name of the part that will be used to ensure that part 1 will not move?</td>
<td>-</td>
</tr>
<tr>
<td>4. What is the direction of the material flow of the piece?</td>
<td>-</td>
</tr>
<tr>
<td>5. Where is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>6. What is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>7. Where is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>8. Where is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>9. Where is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>10. Where is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>11. Where is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>12. Where is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>13. Where is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>14. Where is the edge of the material?</td>
<td>-</td>
</tr>
<tr>
<td>15. What is the purpose of drawing G?</td>
<td>-</td>
</tr>
<tr>
<td>16. Where is the edge of the material?</td>
<td>-</td>
</tr>
</tbody>
</table>

**TOTAL**

18

1. In the design process (ANSWERS 12), draw in neat form, the symbol for the projection system used.
2. What are the correct dimensions of part 3?
3. Complete the parts list by listing the names of parts 2 and 4.
4. What is the purpose of drawing B?
QUESTION 2 (CAMS)

Show all necessary construction.

The given motion.

2.3 Project and show the cam with guide groove
2.4 Draw a development of the cam with guide groove
2.5 Construction of cam
2.6 Show the cam with guide groove

Instructions:

- Over the next 75° the follower rotates to its original position.
- Over the next 75° the follower rotates to its original position.
- Over the next 75° the follower rotates to its original position.
- Over the next 75° the follower rotates to its original position.
- Over the next 75° the follower rotates to its original position.

The cam shows radius and direction of rotation.

The specifications for the momentary arc follows:

On the computing sheet:
- The cam rotation angle of the cam shows as reference.
- The polar center of the cam shows at its given position.
- The short and elongated details of all individual cam
[07] NO hidden detail is required.
* Show all necessary detail and other construction.
* The section lines are visible.
* The edge of the object is shown.
* The corner of the lower end of the object is shown.

Section 1: Sectional View of the Object

- The position of point B on the diagonal plane.
- The isometric view.
- The front view does not show an edge of a triangle.

GIVEN:

QUESTION: ISOMETRIC DRAWING
<table>
<thead>
<tr>
<th>Section: Front View</th>
<th>Section: Top View</th>
<th>Section: Elevation View</th>
<th>Section: Drawing View</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Section AA</td>
<td>3</td>
<td>6. NOSITY</td>
<td>6. NOSITY</td>
</tr>
<tr>
<td>7. Centre Lines</td>
<td>3</td>
<td>2. Wshown</td>
<td>2. Wshown</td>
</tr>
<tr>
<td>6. Wshown</td>
<td>2</td>
<td>2. Shown</td>
<td>2. Shown</td>
</tr>
<tr>
<td>2. Groove</td>
<td>2</td>
<td>2. Groove</td>
<td>2. Groove</td>
</tr>
<tr>
<td>3. Rotating block</td>
<td>2</td>
<td>2. Groove</td>
<td>2. Groove</td>
</tr>
<tr>
<td>1. Base</td>
<td>2</td>
<td>2. Groove</td>
<td>2. Groove</td>
</tr>
</tbody>
</table>

**TOTAL** 50

**Subtotal** 20

**1. Jumper**

**2. Wshown**

**3. Groove**

**4. Centre Lines**

**5. NOSITY**

**6. Groove**

**7. Shown**

**8. Base**

**9. Groove**

**10. Shown**

**11. Jumper**

**12. Wshown**

**13. Groove**

**14. Centre Lines**

**15. NOSITY**

**16. Groove**

**17. Shown**

**18. Base**

**19. Groove**

**20. Shown**

**21. Jumper**

**22. Wshown**

**23. Groove**

**24. Centre Lines**

**25. NOSITY**

**26. Groove**

**27. Shown**

**28. Base**

**29. Groove**

**30. Shown**

**31. Jumper**

**32. Wshown**

**33. Groove**

**34. Centre Lines**

**35. NOSITY**

**36. Groove**

**37. Shown**

**38. Base**

**39. Groove**

**40. Shown**

**41. Jumper**

**42. Wshown**

**43. Groove**

**44. Centre Lines**

**45. NOSITY**

**46. Groove**

**47. Shown**

**48. Base**

**49. Groove**

**50. Shown**