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Please read the following instructions carefully:

1. In order to save time, detailed assembly parts must be drawn to a convention.
2. All diagrams must adhere to the SANS 10111-1.
3. All drawings must be done in the SANS 10111-1 format.
4. Any dimensions or details not given may be assumed in good proportion.
5. Your drawings should be well presented and reflect neatness and accuracy. Marks will be awarded for rubbish and inaccurate work.
6. Use only the answer sheets provided.
7. Please write your examination number neatly on each page.
8. Do not use the margin on the side.
9. All constructed work must be shown on a standard drawing.
10. The question paper consists of 7 pages including the cover page and 6 questions.

**Paper 2**

ENGINEERING GRAPHICS AND DESIGN

2017

ATTACHMENT SHEET

2. Use of engineering symbols.
3. Use of orthographic projection.
4. Use of sectional views.
5. Use of isometric drawings.
6. Use of detail drawings.
7. Use of assembly drawings.

**Time:** 3 HOURS

**Marks:** 200
2/4 Show all computations.

2.1 Plot the given graph in the rectangular form.

2.2 Determine the direction of the graph.

2.3 Draw the graph with a ruler.

2.4 Determine the number of periods.

The graph consists of a line segment and a curve.

The graph shows the following specifications:

- The horizontal axis is the independent variable.
- The vertical axis is the dependent variable.
- The graph consists of a line segment and a curve.

The given graph of the dependent variable is shown for the given set of data. The graph shows the changes in the dependent variable over the given range.
The given figure shows a wheel rotating around the center C. Write a and AD extended to meet point A. Construct the circle through the center of point C. Draw a line parallel to AD and meet the circle at point B. Draw BC joining wheel and point B. The diameter of the wheel is clockwise. Draw all constructions and indicate the direction.

M E C H A N I S M
LOCUS
Q U E S T I O N
2
10 MARKS
1 T
2 D E R
3 P T S
4 S E T
A S S E S S M E N T C R IT E R I A

ANSWER SHEET 2/2
ANSWER SHEET 3

EXAMINATION NUMBER

40 MARKS

Section

Q.No.

ISO

CON

ASSESSMENT CITERIA

1. Show a front elevation diagram of the casting.
2. Draw the construction for the front view.
3. Draw the front view.
4. Add the base plane A-A.

CONSTRUCTION AREA

NATIONAL SENIOR CERTIFICATE ENGINEERING GRAPHICS AND DESIGN Paper 2

PAGE 5 OF 7