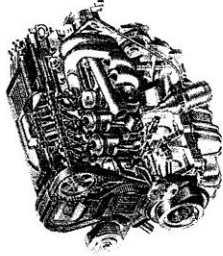
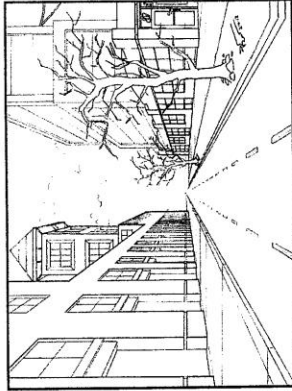


HILLCREST HIGH SCHOOL
ENGINEERING GRAPHICS AND DESIGN EXAM
MIDYEAR EXAM



GRADE 10
 2019
 PAPER 1

TIME: 2 hours
Examiner: Mrs Tonkin

MARKS: 120
Moderator: Mr Victor

NB: READ THE INSTRUCTIONS

1. This paper consists of **4 pages** including the cover page and **4 questions**.
2. Answer **ALL** questions.
3. Take note of the mark allocation in each question.
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. 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 assumed in good proportion.

| QUESTION | SECTION | MARK | MODERATE | MAXIMUM |
|----------|------------|------|----------|---------|
| 1 | NUT & BOLT | | | 20 |
| 2 | TANGENCY | | | 20 |
| 3 | ISOMETRIC | | | 40 |
| 4 | CASTING | | | 40 |
| TOTAL | | | | 120 |
| SYMBOL | | | | 100 |

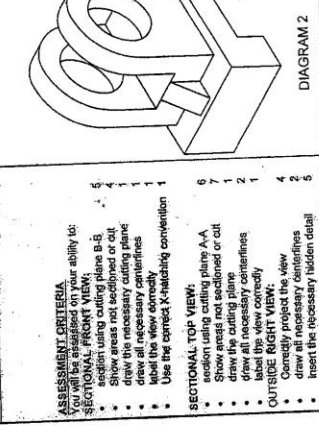
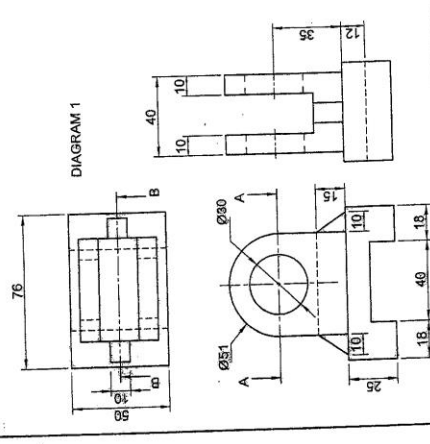
NAME: _____
 TEACHER: _____

QUESTION 4
 The front, top and right side view of a SWING BRACKET are given in diagram 1. The isometric view of the SWING BRACKET is shown in diagram 2.

Using the correct construction and projection methods draw the following views:
 1. A sectional top view as seen from cutting plane A-A
 2. A sectional front view as seen from cutting plane B-B
 3. An outside right view

- show all construction
- show hidden detail only in the right view
- show all cutting planes and center lines
- label all views

[40]



- ASSESSMENT CRITERIA**
- you will be assessed for ability to:
 - 1. draw the front view
 - 2. draw the top view
 - 3. draw the right side view
 - 4. draw the isometric view
 - 5. draw the sectional top view
 - 6. draw the sectional front view
 - 7. draw the sectional right view
 - 8. draw the hidden detail
- SECTIONAL: TOP VIEW:**
- section using cutting plane A-A
 - show areas not sectioned or cut
 - draw all necessary centerlines
 - label the view correctly
- SECTIONAL: FRONT VIEW:**
- section using cutting plane B-B
 - show areas not sectioned or cut
 - draw the necessary cutting plane
 - draw all necessary centerlines
 - use the correct hatching convention
 - label the view correctly
- SECTIONAL: RIGHT VIEW:**
- section using cutting plane A-A
 - show areas not sectioned or cut
 - draw all necessary centerlines
 - label the view correctly
- OUTSIDE RIGHT VIEW:**
- correctly project the view
 - draw all necessary centerlines
 - insert the necessary hidden detail