

Name:

Index No:

Candidates signature:

Date:

KAMUKUNJI DISTRICT KCSE EVALUATION TEST

DRAWING AND DESIGN

JULY 2014

Paper 1

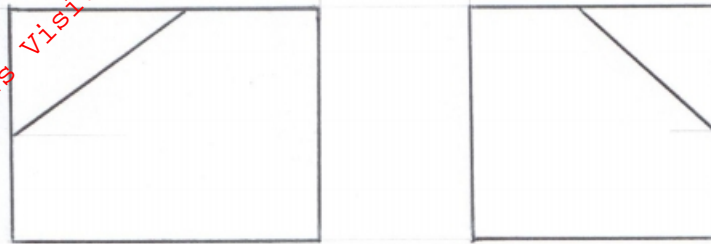
TIME 2 ½ Hours.

Instructions to candidates

- a) You should have the following materials for this examination:
 Drawing instruments
 Answer sheet
 3 sheets of A3 drawing papers.
- b) This paper consists of **three** sections: **A, B** and **C**
- c) Answer **all** questions in section **A** and **B** and any **two** questions in section **C**.
- d) Questions in section **A** must be answered on the answer sheet provided.
- e) Questions in section **B** and **C** should be answered on the A3 sheets of drawing papers provided.
- f) All dimensions are in millimeters unless otherwise stated.
- g) **Candidates may be penalized for not following instructions given in this paper.**
- h) **This paper consists of 10 printed pages.**
- i) **Candidates should check the question paper to ascertain that all the pages are printed. As indicated and that no question is missing.**
- j) **Candidates should answer the questions in English.**

1. Differentiate between a technical drawing and an artistic drawing. (2 Marks)
2. Give four different types of computer aided design and drawing programs that we use in drawing. (4 Marks)
3. List down the process of design a new product. (3 Marks)
4. Using sketches, describe the construction of the following manufactured boards: (6 Marks)
- a) Batten board
 - b) Multiply plywood.
 - c) Lamin board

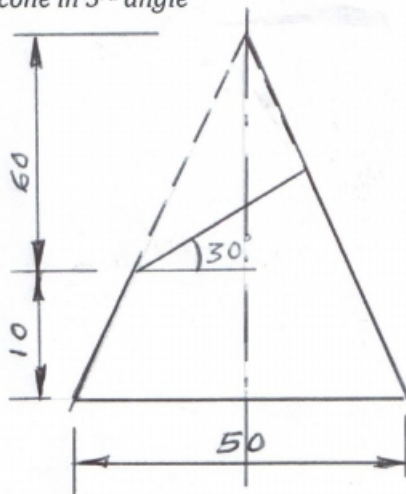
5. Figure 1 shows two orthographic views of a shaped object



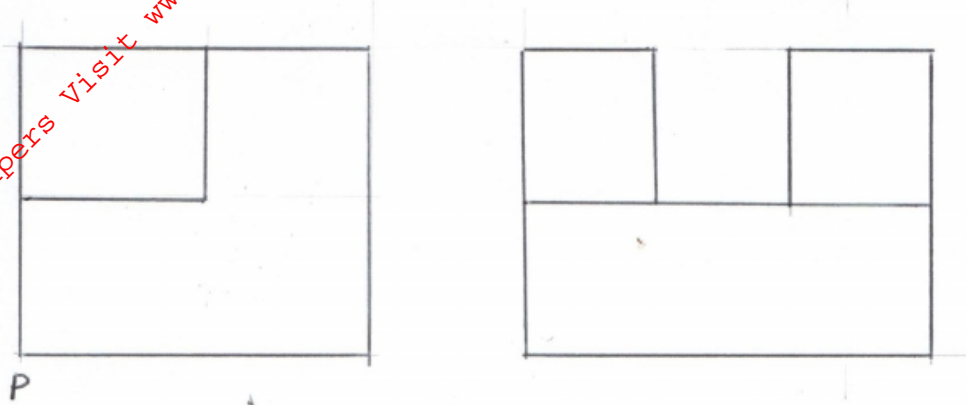
Draw a neat sketch of the object in two point perspective.

(6 Marks)

6. Fig 2 shows a truncated cone of height 70mm and base radius of 25mm. complete the end elevation of the cone in 3rd angle (4 Marks)



7. Fig 3 shows the two views of an object.

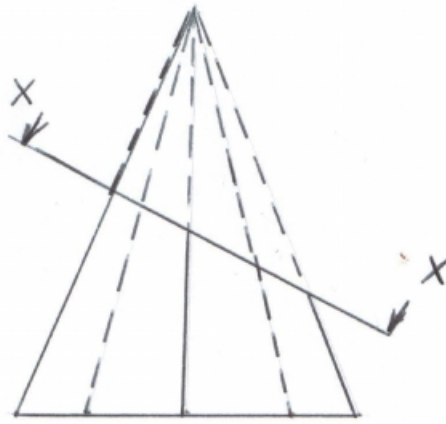


Sketch the isometric view of the object with point P as the lowest point.

(6 Marks)

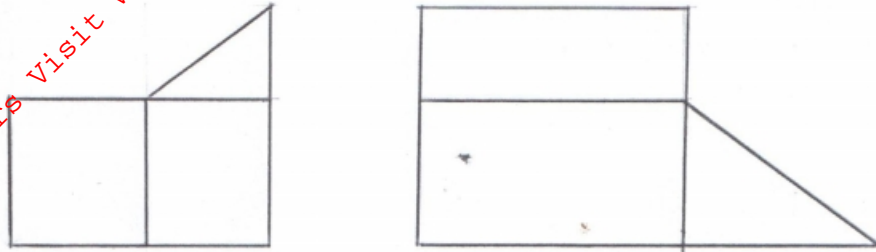
8. Fig 4 represents the end elevation of a pentagonal based pyramid cut by the plane as shown; by completing the drawing, draw an auxiliary view of the object in first angle.

(6 Marks)



9. Draw the locus of point with a radius of 35mm and a lead of 70mm (7 Marks)

10. Fig 5 shows two orthographic views of an object. drawn



Draw a sketch of the object in oblique. (6 Marks)

SECTION B (20 Marks)

This question is compulsory. Candidates are advised to spend not more than one hour on this question

11. Figure 6 shows part of a machine component drawn in first angle projection. Assemble the parts and draw, FULL SIZE the following:

- Sectional front elevation along the cutting plane B - B;
- End elevation;
- Insert three leading dimensions.

Candidates may use their own discretion to determine any unspecified dimensions. Hidden details are not required. (Use the A3 paper provided)

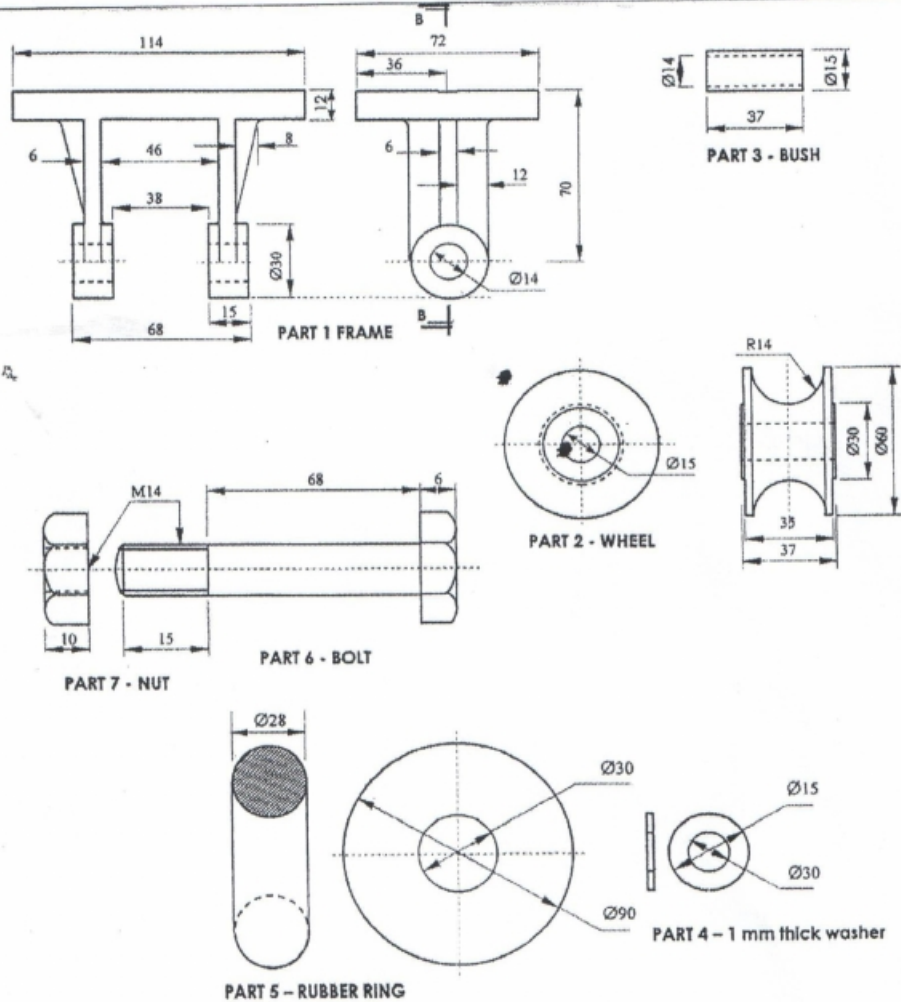


Figure 7

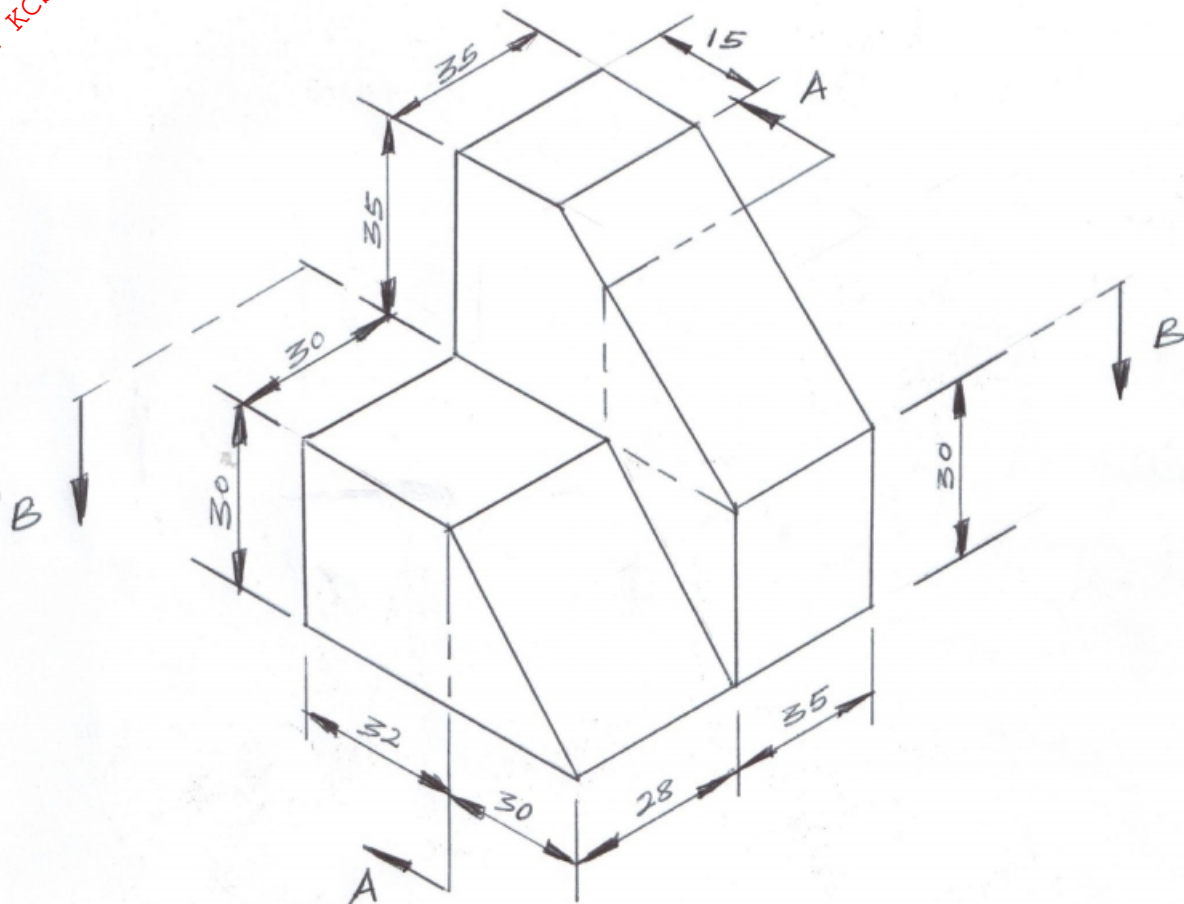
SECTION C (30 Marks)

Answer any two questions from this section.

12. Figure 7 shows an object drawn in isometric view cut by section lines A – A and B – B. draw the following views;

- Front elevation;
- Sectional plan and
- Sectional end elevation

(15 marks)

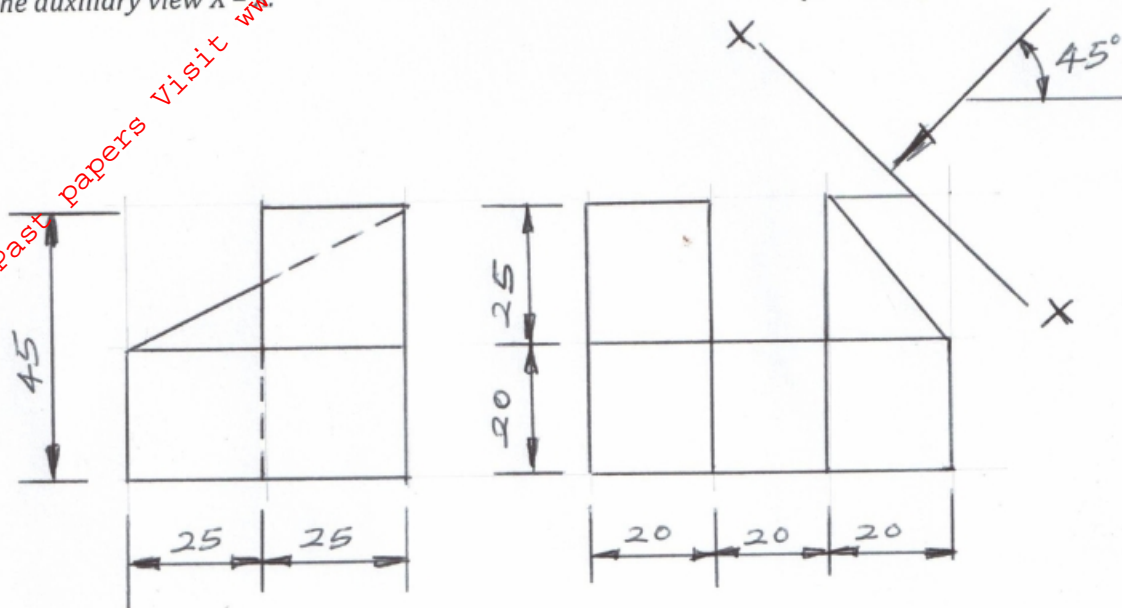


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13. Figure 8 shows two orthographic views of a shaped object with an auxiliary line X - X. Draw;

- The third view;
- The auxiliary view X - X.

(15 Marks)



14. Figure 9 shows the front elevation of a hexagonal based pyramid truncated through the line A – A. draw ;

- a) The end elevation of the object;
- b) The full development of the object.

(15 Marks)

