For Performance Measurement

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Advanced Level

WOOD TECHNOLOGY AND DESIGN 6027/3

PAPER 3 Drawing and Design

SPECIMEN PAPER 3 hours

Additional materials:
Electronic calculator, Mathematical Set, Computer with Autocad applications,
USB flashdisk, A3 Drawing paper, 3D printer

TIME 3 hours

INSTRUCTIONS TO CANDIDATES

Type your centre number, candidate number and name in the spaces provided on all your electronic answer sheets.

Section A: Answer **all** questions

Section B: Answer **one** question from this section.

The total marks for this paper is 100

INFORMATION FOR CANDIDATES

Marks are given in brackets [ ] at the end of each question.
At the end of the examination, save your work on the USB disk and print your work.
Fasten your work securely together.

This question paper consists of 4 printed pages.

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SECTION A (20 MARKS)

Answer **all** questions.

You are advised not to spend more than **30 minutes** on this section.

1 **(a)** What is a command line used for in Autocad? [2]

(b) Where are blend curves used? [2]

(c) Name the two drawing spaces in Autocad. [2]

(d) Name the process of creating an object at a distance on one side of an original object. [2]

(e) Describe rendering in Autocad. [2]

(f) **Figure 1** shows part of a bicycle. Reproduce the drawing in **Figure 1** using the given measurements to a scale 1:1 [10]

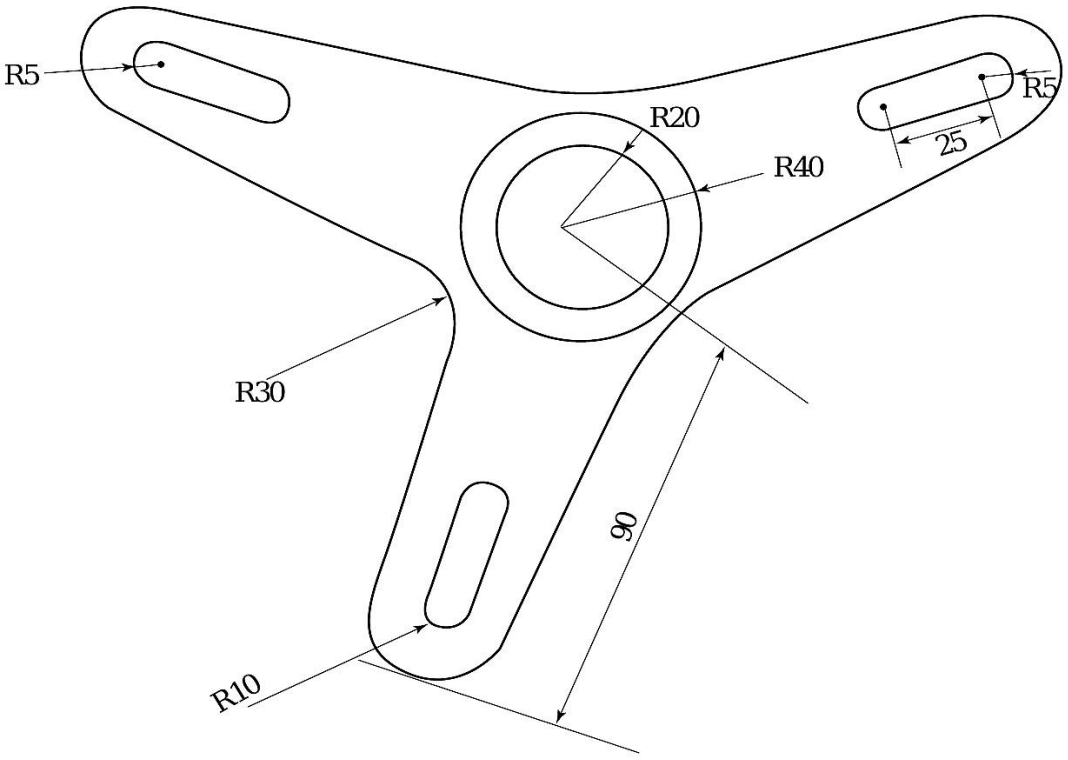


Fig.1

SECTION B: (80 MARKS)

Answer **one** question from this section. You are advised to spend **$2\frac{1}{2}$ hours** on this section.

2 The sketch in **Figure 2** shows an incomplete floor plan of a five roomed house.

(a) Design the layout plan of the five roomed house.

The plan should include:

(i) two bedrooms

(ii) a passage

(iii) important dimensions excluding external dimensions.

Fill in title block details. [20]

(b) In the appropriate rooms, place the following accessories:

- beds,
- dressing table,
- sofas,
- built in cupboards,
- sinks, bathtub, water closet,
- TV set, refrigerator and
- stove. [20]

2 **(c)** Use 3D to model the kitchen in **2(b)** above. Add more items or features in the kitchen. Use colour to enhance the appearance of the drawing. [40]

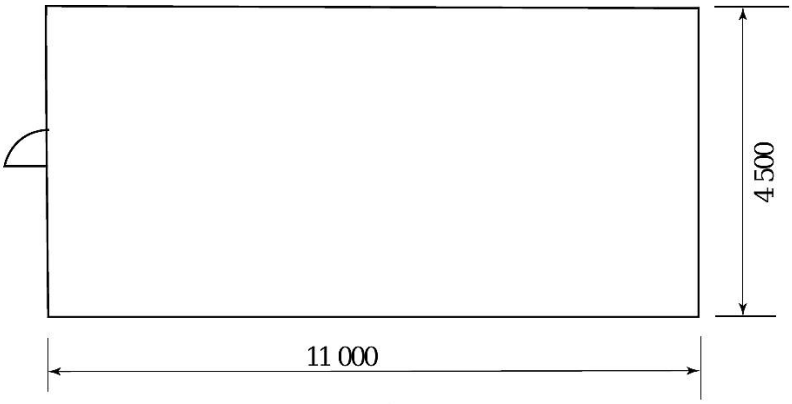


Fig.2

3. A small office measuring 6 000 mm x 4 000 mm is to be attached to the church hall. A lean-to roof structure is to be fixed to the existing hall.

(a) **(i)** Design the lean-to truss for the office in 2D.

(ii) Clearly label all the parts/ members

- king post
- queen post
- strut
- common rafter
- beam

(iii) Show all important dimensions.

(iv) Fill in all appropriate details in the title block. [40]

(b) Produce attachment details of the trees to the well in 3D:

(i) at the apex,

(ii) at the foot. [20]

(c) Design flashing details for the wall and the roof covering materials in 2D. [20]