ZIMBABWE SCHOOL EXAMINATIONS COUNCIL
General Certificate of Education Advanced Level

GEOGRAPHY

6037/3

PAPER 3 Practical Test

JUNE 2020 SESSION

3 hours

1:50 000 survey map and a map of Zimbabwe are enclosed with this question paper.

Additional materials:
Answer paper,   Graph Paper,
Calculator,   Mathematical Formulae Booklet.

TIME 3 hours

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces provided on the answer paper/answer booklet.

Answer **all** questions in Section A **one** question in Section B and **one** question in Section C.

Write your answers on the separate answer paper provided.

If you use more than one sheet of paper, fasten the sheets together.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

This question paper consists of 6 printed pages.

|Turn over

SECTION A: STATISTICS

Answer **all** questions in this section.

1 Table 1.1 below shows mean maximum temperatures for Harare in 2007.

MONTH	MEAN MAXIMUM TEMPERATURE
JANUARY	25
FEBRUARY	24
MARCH	24
APRIL	24
MAY	22
JUNE	20
JULY	20
AUGUST	23
SEPTEMBER	27
OCTOBER	28
NOVEMBER	28
DECEMBER	27

(a) Calculate the following:

    (i)   range, [1]

    (ii)   upper quartile, [2]

    (iii)   lower quartile, [2]

    (iv)   interquartile range. [2]

(b) Explain the disadvantages of using range as a measure of dispersion. [3]

(c) A survey was undertaken to establish the location of grassland and woodland on a hill slope. A land use map was then drawn. Point sampling on this map then established number of clumps of grassland and woodland obtained at different locations.

	Under 300m (clumps)	Under 301-500m (clumps)	500m + (clumps)
Grassland	36	17	7
Woodland	4	23	3

    (i)   Using Chi-square, test the relationship between vegetation cover and altitude. Use 0.05 significance at 2 degrees of freedom. [13]

    (ii)   Comment on the relationship between vegetation and altitude. [2]

SECTION B: MAPPING

Answer **one** question in this section

TOPOGRAPHICAL MAP

2   (a)   Study the map **1:50 000** of Buhwa, Zimbabwe provided.
Draw a well labelled sketch map to show the main relief and drainage features of the area. [9]

    (b)   Write an explanatory account of the origin of relief features of the area. [8]

    (c)   Explain the drainage features of the area. [8]

SECTION C: RESEARCH TECHNIQUES

PHYSICAL COMPONENTS

5   You are required to carry out a survey to investigate soil characteristics in your local area.

    (a)   Describe how you would plan the survey.   [4]

    (b)   Describe how you would investigate the following soil characteristics in the field

        (i)   Soil texture,
        (ii)   Soil pH,   [9]
        (iii)   Soil colour.

    (c)   Explain the relevance of your findings to a farmer.   [4]

    (d)   Outline the problems you would encounter when carrying out the survey in the field.   [3]

    (e)   With the aid of a diagram describe how your results in (b) may be presented.   [5]

HUMAN COMPONENTS

6   (a)   You are required to carry out a survey in a local suburb to find out how the residents manage their solid waste.

        (i)   Design a questionnaire that you would use to collect data in the field.   [7]
        (ii)   Outline the problems you may encounter when carrying out your survey.   [6]

(b) Table 6.1 shows the types of recepticles used by residents for collecting solid waste inside their houses.

Table 6.1

Type of recepticle	Number of households
Internal bin	38
Cardboard box	21
Plastic bucket	67
Refuse bag	15

(i) Draw a simple bar chart to represent the data in the table. [6]

(ii) Outline the advantages and disadvantages of a bar chart. [5]

(iii) Name one other technique that may be used to present the data in **Table 6.1**. [1]

7 MITIGATION AND ADAPTATION

(a) Outline the causes of flooding. [5]

(b) Describe problems that are associated with flooding. [10]

(c) Explain how you can use remote sensing in predicting and monitoring flood occurrence. [10]