NAJJANANKUMBI YOUNG CHRISTIAN SCHOOL

SENIOR ONE END OF 2nd TERM MATHS EXAMINATION

SECTION A(Attempt all questions)

Time: 1hour. 45 minutes.

ITEM 1

One of the base angles of an isosceles triangle is 49°. Find each of the other two angles.

ITEM 2. A rectangular pitch measures 308 m by 228 m. Fencing posts are placed along its sides at equal distances apart. If the posts are as far apart as possible, determine the distance between them.

ITEM 3.

A piece of thread can be cut into equal lengths, either 20 cm or 24 cm or 30 cm long. Determine the length of the shortest piece of thread for which this is possible.

ITEM 4

Mary, Aisha, Omoding, Elijah and Tamale are arguing about who is the tallest and who is the shortest. Mary is 161.54 cm, Aisha is 162.45cm, Omoding is 162.71 cm, Elijah is 161.34 cm and Tamale is 162.35 cm, List their heights in order from the shortest to the tallest and hence

determine who is the tallest.

ITEM 5

A factory produces 400 medical instruments in a day but on average18 of the these are faulty. What percentage is faulty?

SECTION B (Attempt only two questions)

ITEM 6

Construction work in geometry is restricted to the use of two instruments only, a straight edge and a pair of compasses. With these, you can draw straight lines and circles. The protractor is only used after the construction to measure the required angles.

TASK: Construct a square of side 6.5 cm. Circumscribe a circle about the square. State the radius.

ITEM 7

A ship sails from harbour H on a bearing of 81° for 495 km until it reaches point X.

It then sails on a bearing of 220° for 200 km until it reaches point Y.

a) Use a scale of 1 cm to represent
50 km to draw an accurate diagram to show the journey of the ship.

b) Use your diagram to find the distance from Y to the harbour.

c) From point Y, what bearing must the ship cruise in order to return directly to the harbour?

ITEM 8

Town T is 150 km from a school on a bearing of 060°. Town R is 134 km from the school on a bearing of 195°. A health centre is 174 km from town T on a bearing of 160°.

a) Using a scale of 1 cm to 20 km, construct a scale drawing showing the positions of the towns, school and health centre.

b) From the scale drawing, find the;

(i) distance of town R from the health centre.

(ii) bearing of town R from town T.

c) If a motorist travels directly from the health centre to town R at an average speed 60 km/h, determine how long, in hours it would take.