



CHRISTIAN SOCIAL SERVICES COMMISSION (CSSC)
CSSC JOINT EXAMINATIONS FOR CHURCH SCHOOLS
EASTERN ZONE

FORM II PRE – NATIONAL EXAMINATION 2024

BASIC MATHEMATICS

CODE: 041

Time: 2:30 Hours

Date: Thursday, 22nd August, 2024 a.m

Instructions

1. This paper consists of **ten (10)** questions.
2. Answer **all** questions from all the sections.
3. Each question carries **ten (10)** marks.
4. Show clearly all the working and answers in space provided.
5. All workings must be in black or blue ink EXCEPT drawings which must be in pencil.
6. Four figures / mathematical tables, geometric instruments and graph papers may be used where necessary.
7. Cellular phones and any unauthorized materials are not allowed in the Examination room.
8. Write your **Examination Number** on the top right hand corner of every page.

FOR EXAMINER'S USE ONLY

QUESTION NUMBER	SCORE	EXAMINER'S INITIALS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
TOTAL		
CHECKER'S INITIALS		

Answer **all** questions

(i) Five significant figures

(ii) Three decimal places

(b) A rope of 18m and 80cm is to be divided into four equal parts. How long will each part be? (Give your answer in metres and centimetres)

3. (a) The width of a rectangular garden is 4 metres less than its length. If the perimeter of the garden is 216m, find the area of the garden.

(b) If $\frac{2a-b}{a+b} = 8$, determine the value of $\frac{a}{b}$

5. (a) An entrepreneur invested a certain amount of money got back an amount of 840,000 Tsh. If the bank paid an interest of 70,000 Tsh. Find the amount she invested.

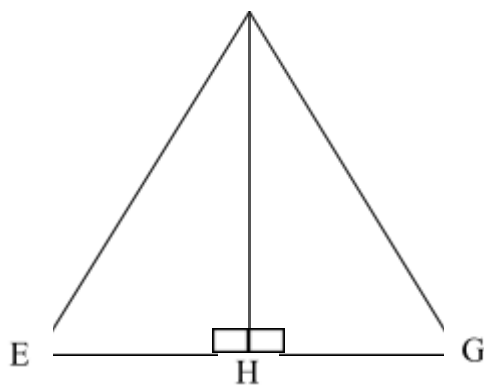
(b) Juma, Ali, Mary and Kato have 300, 100, 500 and 600 shares in a cooperative shop respectively. Divide 150,000 Tsh among them in the ratio of their shares.

6. (a) Find the equation of the line passing through the points P(4, 4) and Q(-3, 2) in the form of $ax + by + c = 0$

- (b) Find the image of the point Q(3, -4) after a rotation through 90° about the origin in the anticlockwise direction.

[illegible]

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9. (a) A triangle ABC has a right angle at C. If $10\cos A = 5$
 (i) Draw the triangle ABC

(ii) Find the value of $5 \sin A \cos B$

- (b) A tree casts 60cm shadow when the angle of elevation of a sun is 60° .
 (i) Find the height of the tree

(i) Find the number of members of set $A \cup B$

(b) The examination marks of 45 students in a certain school were recorded as follows.

65	58	71	62	64	35	72	32	64	46
54	63	63	75	71	61	36	64	80	61
64	60	68	48	35	92	73	46	24	35
59	82	73	76	40	64	76	27	64	46
43	30	50	70	28					

(i) Construct a frequency distribution table using class intervals 21 – 30 , 31 – 40, 41 – 50 etc

(ii) If the pass mark was above 50%, find the percentage of students who passed the examination.

Candidate's Examination Number _____

(iii) Draw the cumulative frequency curve and from it identify the mark of the 20th student.