



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF EDUCATION**  
**UNIVERSITY EXAMINATION FOR THE DIPLOMA IN SPECIAL NEEDS**  
**2<sup>ND</sup> YEAR 2<sup>ND</sup> SEMESTER 2016/2017 ACADEMIC YEAR**  
**MAIN CAMPUS REGULAR**

---

COURSE CODE: ESN 2223

COURSE TITLE: **MATHEMATICS AND MATHS DIFFICULTIES**

EXAM VENUE:

STREAM:

**DATE:**

**EXAM SESSION:**

**TIME: 2 HOURS**

---

Instructions:

1. Answer Question ONE (COMPULSORY) and ANY other 2 questions
2. Candidates are advised not to write on the question paper.
3. Candidates must hand in their answer booklets to the invigilator while in the examination room.

## QUESTION 1

- (a) Differentiate between the following terms
- Dysgraphia and Dyscalculia (4 marks)
  - Mathematics and Arithmetics (4 marks)
- (b) The Medics and Lawyers both argue that mathematics is very significant in their professions. Using specific examples support their arguments. (10 marks)
- (c) Why is Vygotsky's theory of the zone of proximal development considered to be dynamic in teaching mathematics rather than Piaget's theory? (8 marks)
- d) State two skills that the theory can help us to develop among children with special needs (4 marks)

## QUESTION 2

954.7 - 36.17: The child worked out the question given as below this one vertically as shown below:-

$$\begin{array}{r} 954.7 \\ - 36.17 \\ \hline 59.3.0 \end{array}$$

- Give any four skill areas of difficulties that this child had. (12 marks)
- As a teacher, explain how you can correct the error above (8 marks)

## QUESTION 3

- One of the difficulties in mathematics among children is **apparent excessive fear** of mathematics. Write the terminology given to this fear. (2marks)
- State any four causes of the difficulties in (a) above (8 marks)
- Give **four** possible intervention measures to alleviate mathematics anxiety among the H.I children. (8marks)
- State any two pre-requisite to learning mathematics (2 marks)

## QUESTION 4

- State and explain any two mathematics difficulties that children with SNE may have when doing exams in standard eight. (8 marks)
- Explain the four stages of piagetian cognitive development in reflection to mathematics conceptualization among children.

## QUESTIONN 5:

- Differentiate between formal and informal tests in the course of teaching. (4marks)
- State two circumstances in which a teacher sets:
  - Informal test
  - Formal test (8 marks)
- After teaching, as a teacher you are expected to set a formal test to assess the performance of the learners. Explain any three considerations you make when setting such a test (8 marks)