



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF EDUCATION
UNIVERSITY EXAMINATION FOR THE DIPLOMA IN SPECIAL NEEDS
2ND YEAR 2ND SEMESTER 2017/2018 ACADEMIC YEAR
MAIN CAMPUS REGULAR

COURSE CODE: ESN 2223

COURSE TITLE: MATHEMATICS AND MATHS DIFFICULTIES

EXAM VENUE:

STREAM: DIP. SNE

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.**

QN 1

(a) Differentiate between the following terms

i. Dyscalculia and Dysgraphia (4 marks)

iii. Mathematics and Arithmetics (4 marks)

(b) State any two theories connected to the learning and development of mathematics concepts and skills. (4 marks)

c) State two skills that the theory can help us to develop among children with special needs (4 marks)

d) Differentiate between perceptual figure-ground discrimination and spatial discrimination difficulties (6 marks)

e) Explain how low vision can cause Arithmetic difficulties (4 marks)

f) Explain how formal and summative evaluation can help in improving the standards in Maths among learners with hearing impairment (4 marks)

QN 2

a) The Medics and the agriculturalist both argue that mathematics is very significant in their professions. Using specific examples support or disapprove their arguments. (10 marks)

b) Why is Vygotsky's theory of the zone of proximal development considered to be dynamic in teaching mathematics rather than Piaget's theory? (10 marks)

QN 3

a) One of the difficulties in mathematics among children is **apparent excessive fear** of mathematics. Write the terminology given to this fear. (2marks)

b) State any four causes of the difficulties in (a) above (8 marks)

c) Give **four** possible intervention measures to alleviate mathematics anxiety among the H.I children. (8marks)

- d) State any two pre-requisites to learning mathematics **(2 marks)**

Question Four

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

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

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

Question Five

- a) State and explain any two mathematics difficulties that children with SNE may have when doing exams in standard eight. **(8 marks)**
b) Explain the four stages of piagetian cognitive development in reflection to mathematics conceptualization among children. **(12 marks)**