



**KISII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**

**FIRST YEAR EXAMINATION FOR THE AWARD OF THE  
DIPLOMA IN SOCIAL WORK AND COMMUNITY DEVELOPMENT  
SECOND SEMESTER 2021/2022  
[JUNE-SEPTEMBER, 2022]**

**DSWA 0103: QUANTITATIVE SKILLS**

**STREAM: Y1 S2**

**TIME: 2 HOURS**

**DAY: FRIDAY, 3:00 – 5:00 PM**

**DATE: 16/09/2022**

**INSTRUCTIONS**

- 1. Do not write anything on this question paper.**
- 2. Answer question ONE (Compulsory) and any other TWO questions.**

**QUESTION ONE**

A. Given below are the scores of students in a Biology test

Score	Number of students
10-15	2
15-20	3
20-25	4
25-30	6
30-35	10
35-40	7
40-45	4
45-50	3

Calculate

- i. Mean score (2 marks)
- ii. Median mark (3 marks)
- ii. Modal class (2 marks)
- iv. If 25% of the students are to pass find the pass mark (3 marks)
- v. Upper quartile (Q3) (4 marks)

B. Below is the information from the books of Nyamweno Socks Business as at 31<sup>st</sup> Dec 2021.

Item	Value in Kshs.
Furniture	20,000
Stock	25,000
3 year KCB bank loan	100,000
Motor van	550,000
Debtors	7,000
Creditors	15,000

Cash at hand	18,000
Cash at bank	70,000

- i. Calculate value of capital as at 31st Dec 2021 (3marks)
- ii. Draw balance sheet at same date (3marks)
- iii. Total value of current assets (3marks)

C. Mogeni invested ksh.40,000 in a bank at compound interest of 3% p.a for 3 years .What interest did she get (3marks).

D. Robi spent  $\frac{2}{7}$  of her pocket money and had Ksh .340 left .How much did she have initially. (3marks)

**Section B. Pick and do any two questions for they carry equal marks**

**QUESTION TWO:**

Mercy invested ksh.100,000 in a bank at compound interest of 4% p.a for 5 years .

Calculate:

- i. Amount got after 5 years (3marks).
- ii.Amount got if the interest is compounded semiannually for 3 years (4marks).
- iii. Amount got if the interest is compounded quarterly for 4 years (4marks).
- iv. Simple interest got if the interest rate is 3 p.a for 4 years (4marks).
- v. Value of time (n) if amount got is 210,000 at 4% p.a compound interest. (5 marks).

**QUESTION THREE:**

Given below are the scores of students in a Maths test

Score	Number of students
30-39	4
40-49	5
50-59	7
60-69	10
70-79	8
80-89	5
90-99	4

Calculate

- i. Mean score (3 marks)
- ii. Median mark (4 marks)
- iii.Upper quartile (Q3) (4 marks)
- iv. The pass mark if 20% of the students are to fail (4 marks)
- v. Draw Ogive curve for the above data. (5 marks)

**QUESTION THREE:**

Below is the information from the books of Nyerere books Business as at 31<sup>st</sup> Sept 2021 .

Item	Value in Kshs.
Furniture	90,000
Stock	310,000
2 Year Equity bank loan	200,000
Motor van	520,000

Debtors	100,000
Creditors	30,000
Cash at hand	18,000
Bank overdraft	70,000

Calculate value of:

- i.Total fixed assets (4marks)
- ii.Value of Capital (3marks)
- iii.Draw balance sheet at same date (5marks)
- iii.Total value of liabilities (4marks)
- iv.Value of the Motor van after 3 years if it depreciates at 2.5% p.a (4marks)

### QUESTION FIVE

In a school of 600 students , $\frac{4}{7}$  are athletes,  $\frac{1}{8}$  play soccer and  $\frac{1}{3}$  of the remainder play volley ball .

- i.How many play volley ball (4marks)
- ii.How many are in football and athletics (4marks)
- iii.If  $\frac{4}{7}$  of the students are girls ,how many are boys in the school(4marks)
- iv.If  $\frac{3}{5}$  of the boys are tall ,how many are short among the boys (4marks)
- v.If  $\frac{2}{5}$  of the girls come from urban centers ,how many girls come from rural areas (4marks).