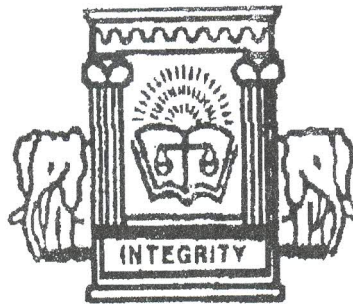


**THE INSTITUTE OF CHARTERED
ACCOUNTANTS (GHANA)**



**MAY 2010 EXAMINATIONS
(PROFESSIONAL)**

PART 2

**QUANTITATIVE TOOLS IN BUSINESS
(Paper 2.1)**

Attempt five (5) Questions in ALL

TIME ALLOWED:

Reading & Planning	-	15 Minutes
Working	-	3 Hours

NOTE: *Formulae and statistical table are attached to the question paper.*

QUESTION 1

The table below refers to taxes paid by a sample of 1000 people in a suburb of Kumasi in various income groups last year.

Annual Gross Income (GH¢)	Number of people	Total Tax Paid (GH¢)
Less than 6000	60	6,000
6000 and less than 8000	260	20,000
8000 and less than 10000	310	66,000
10000 and less than 14000	220	70,000
14000 and less than 20000	120	74,000
20000 and less than 32000	20	68,000
32000 and above	10	100,000

Required:

- a)
 - (i) Use appropriate formulas to calculate all the **three (3)** measures of central tendency of the gross annual income. **(9 marks)**
 - (ii) Use your answers in (i) to comment on the distribution of the gross annual incomes of the people of this suburb. **(2 marks)**
- b) Calculate the coefficient of variation of the distribution of gross annual incomes of the people of this suburb. **(4 marks)**
- c) Construct a Lorenz curve that will show the inequality or otherwise of the distribution of taxes paid by the people in this suburb. **(5 marks)**

(Total: 20 marks)

QUESTION 2

- a) State any two basic decisions faced by a manager with stock-control responsibility. **(2 marks)**
- b) State and explain **four (4)** costs involved in stock-control. **(6 marks)**
- c) A local firm has responsibility for producing and supplying pens to all schools in its catchment area. Over the past couple of years, annual demand for these pens has been 1550 packets per year. The local firm can produce at an annual rate of 7750 packets of pens.

The setup cost per production run is GH¢3,000 and the inventory holding cost per packet per year is GH¢360. There are 310 working days in a year for the local firm.

