Index Number:.....Signature.....Date:.....

CHRISTIAN SERVICE UNIVERSITY COLLEGE

KUMASI, GHANA

DEPARTMENT OF COMMUNICATION AND BACHELOR OF BUSINESS ADMINISTRATION (BBA)

END OF FIRST SEMESTER EXAMINATIONS – 2018/19 ACADEMIC YEAR

LEVEL 200

CSUC 201: QUANTITATIVE TECHNIQUES

MAY 2019 **70 Marks** **Time Allowed: 2Hours**

GENERAL INSTRUCTION TO CANDIDATES:

- Answer **ALL** Questions.
- All details work including rough work should be shown with the answer.

Question One

The table below give the distribution of 200 pupils in a certain test

Marks	11-20	21-30	31-40	41-50	51-60	61-70	71-80
Frequency	18	36	34	34	42	16	10

Calculate

a. The modal mark of the distribution
b. The Range of the distribution

[10 marks]

Question Two

a. Given that $Q = \begin{bmatrix} 1 & 4 & 2 \\ 3 & 4 & 5 \\ 3 & 4 & 2 \end{bmatrix}$ and

$P = \begin{bmatrix} 2 & 1 & 1 \\ 4 & 3 & 1 \\ 2 & 2 & 4 \end{bmatrix}$, Evaluate

(i) $3Q + P$
(ii) $Q - 2P$ [5 marks]

(b) Find determinant of Q.

[5 marks]

Question Three

a. The destribution of marks are as follows, 2, 3, 4, 5, 6
Find
i. The mean mark
ii. The standard devcation.
iii. The mean devcation [6 marks]

b. A woman deposited ¢460,000 at a bank of a rate of 12% per annum for 4 years. Find the simple interest. What is the amount at the end of the fouth year?

[4 marks]

Question Four

The data in the table below shows the marks obtained by a group of 7 students in Mathematics and Physics

Maths (x)	37	49	52	63	77	78	92
Physics (y)	17	29	35	39	63	52	73

Calculate Spearman's rank correlation coefficient

Question five

Find the mean, mode and median of the distribution bellows.

X	3	4	5	6	7	8
Y	3	8	13	10	5	1

[10 marks]

Question Six

a. Find the amount and the compound interest on ¢850,000 for 4 years at 20% per annum.

[6 marks]

b. Given that R = $\begin{bmatrix} 4 & 1 \\ -2 & 3 \end{bmatrix}$,

Find the invers of R [4 marks]

Question Seven

a. In a class of 40 students, 25 are girls and 15 are boys. What is the probability that a students selected, at random is

(i) A girl

(ii) A boy [6 marks]

b. Lovi, Kusi and Ntim shared ¢504, 000 in the ratio 2:3:4, respectively. Find the amount each received. [4 marks]