MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF COMMERCE

UNIVERSITY ORDINARY EXAMINATION

2017/2018 ACADEMIC YEAR

THREE YEAR **SECOND** SEMESTER EXAMINATION FOR

BACHELOR OF COMMERCE

AMS 215 –INTRODUCTION TO BUSINESS STATISTICS

DURATION: 2 HOURS

DATE: 26TH APRIL, 2018

TIME: 9.00 – 11.00 A.M

Instructions to Candidates:

1. Answer **Question 1** and **Any Other Two** questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

SECTION A – ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE

a) Explain the following terms as applied in statistics

    i.   A parameter.

    ii.   A statistic.

    iii. Sampling.

    iv. Confidence interval.

    v.   Significance level.   (10 marks)

b) The distribution of the weights of nuts in an assembling plant were recorded as below.

Weight (gms)	No of nuts
135-139	12
140-144	22
145-149	32
150-154	24
155-159	20

    Calculate the mean, mode and mean deviation.   (10 marks)

c) The study of a group of students showed that 17 of the students were taking accounting course, 13 students were taking marketing course, 5 were taking both accounting and marketing courses while 10 do not take either of the two courses. If a student is selected at random from the study. Calculate the probability that.

    i.   The student take only marketing course.

    ii.   The students take either marketing or accounting course.   (10 marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO

a) Explain any four random sampling methods.   (8 marks)

b) Find the standard deviation of the wages of the following seven workers working in a timber yard.

                                                     (12 marks)

Worker	A	B	C	D	E	F	G
Weekly wages(shs)	1320	1312	1322	1326	1340	1320	1331

QUESTION THREE

a) The expenditure by students in college weekly is normally distributed with a mean of Sh. 4800 and a standard deviation of Sh. 300. Fine the probability that a student selected at random.

    i.   Spend more than Shs. 5000 weekly.

    ii.   Spend between Sh. 4000 and Sh. 4500. (8 marks)

b) Distinguish between the following.

    i.   Skewness and Kurtosis

    ii.   Type I error and Type II error. (8 marks)

c) Discuss uses of statistics in business (4 marks)

QUESTION FOUR

a) Data on price and sales were registered, as below:

Price X	50	60	72	42	35	40
Sales Y	100	60	58	150	95	120

Draw the scatter diagram and comment.

b) Calculate Karl Pearson's coefficient of correlation. (20marks)