TAKORADI TECHNICAL UNIVERSITY
DEPARTMENT OF TOURISM MANAGEMENT
END OF FIRST SEMESTER RESIT EXAMINATIONS
2017/2018 ACADEMIC YEAR

B-TECH TOURISM
AUGUST 2018

BASIC STATISTICS
STA 101

TIME: 2 HOURS

Answer all the questions in section A and two from section B.

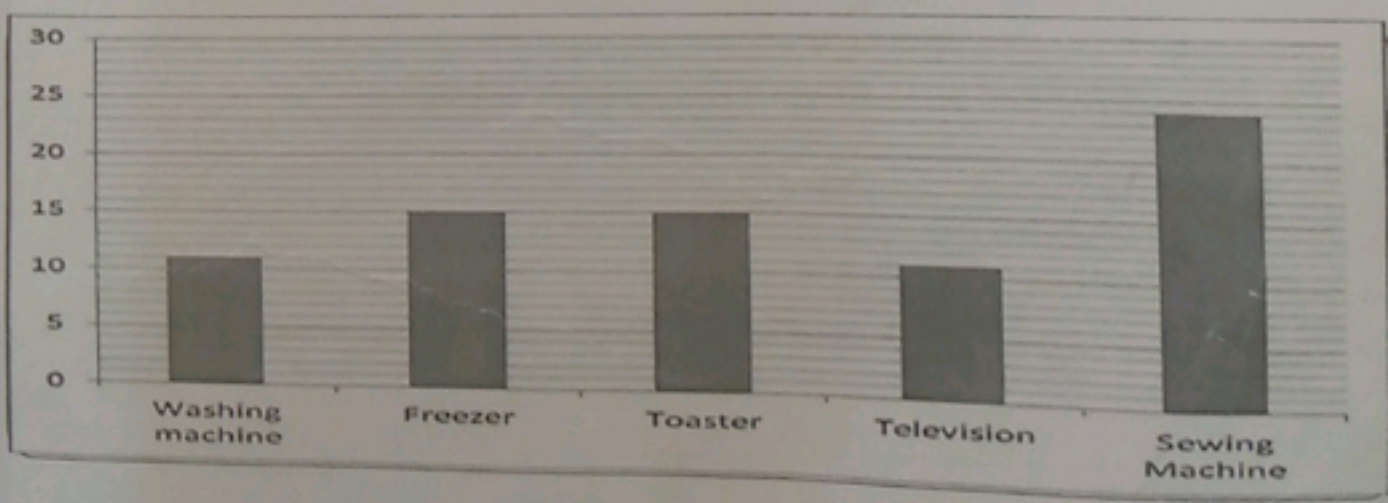
Section A (50 marks)

1. Consider the following responses from a questionnaire administered to TTU students. Use a coding system to simplify the information below on a spreadsheet

Respondent	Gender	Age	Programme of Study	Hall of residents	Religious Affiliation	Tribe
1	Male	18 – 20	Tourism	Ghacem	Moslem	Ewe
2	Female	21 – 24	Hospitality	Getfund	Traditionalist	Fante
3	Female	25 – 28	Textiles	Nzema	Christian	Ga
4	Male	25 – 28	Statistics	Ahanta	Christian	Fante
5	Female	21 – 24	Hospitality	ghacem	Traditionalist	Ewe
6	Male	18 – 20	Textiles	Getfund	Christian	Fante
7	Male	25 – 28	Tourism	Nzema	Traditionalist	Ewe
8	Female	21 – 24	Statistics	Nzema	Moslem	Ga
9	Male	25 – 28	Textiles	Ahanta	Christian	Fante
10	Female	18 – 20	Tourism	Ghacem	Moslem	Fante

12 marks

2. The bar chart below shows the length of time it takes appliances in TTU break down. Use it to answer the questions that follow.



a. Which of the appliances should last longer? **1 mark**

b. List the appliances that should last more than 14 years. **2 marks**

c. What percentage of the appliances last less than 12 years? **2 marks**

d. Which appliances last the same length of time? **2 marks**

3.

a. State two (2) advantages each of using both primary and secondary data. **2 marks**

b. Explain what is meant by Descriptive Statistics and Inferential Statistics. **4 marks**

c. Distinguish between self-enumeration and personal interview. **4 marks**

d. Which of the two in (c) above is more effective and why? **2 marks**

4.

No. of Tablets	2 - 6	7 - 11	12-16	17-21	22-26	27-31	32-36	37-41	42-46
No. of persons	11	13	16	14	X	9	7	6	4

(a) Calculate the missing value from the following data if the average (mean) number of tablets to cure a person is 20

(b) Use your results in (a) to calculate the median mark **(13 marks)**

5. (a) distinguish between correlation and regression **(2 marks)**

(b) Explain the term positive and negative correlation **(2marks)**

(c) Illustrate (5b) on a diagram **(2 marks)**

SECTION B (50 MARKS)
ANSWER TWO QUESTIONS IN THIS SECTION

6. The manager of TTU restaurant wants to hire one more checkout clerk. To justify his request to the Vice Chancellor the manager chose a random sample 0f 50 customers and timed how long each stood in line before a clerk could begin checking the customer out. The data below shows the minutes it took to checked the customers out.

Minutes	0 – 2	3 - 5	6 – 8	9 – 11	12 - 14	15 – 17	18 – 20
Frequency	4	3	8	15	13	5	2

Calculate the;

(a) Mean
(b) variance
(c) standard deviation
(d) Coefficient of variation

7. For a random sample of 10 students the relationship between their college grade point – average (Y) and their high school grade point average (X) is as follows.

X	31	27	36	37	40	30	33	35	36	40
Y	25	20	31	34	39	21	28	29	30	38

(a) Calculate the correlation coefficient
(b) Comment on your result in (a)

8. For eight families, the amount spent annually on food, and their annual income, are given below

Food Expenditure (x)	4	6	3	5	2	2	3	3
Income (y)	20	40	11	30	9	12	15	21

(a) Construct a scatter plot of the data
(b) Calculate the regression equation and use it to predict the income if food expenditure 10

$\sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$	$\sqrt{\frac{\sum(x-\mu)^2}{N}}$	$\frac{n(\sum xy)-\sum x\sum y}{\sqrt{[n(\sum x^2)-(\sum x)^2][n(\sum y^2)-(\sum y)^2]}}$
$\frac{n(\sum xy)-(\sum x)(\sum y)}{n(\sum x^2)-(\sum x)^2}$	$\frac{(\sum y)}{n}-b\left(\frac{\sum x}{n}\right)$	$\frac{\sum(x-\mu)^2}{N}$
$\frac{\sum f(x-\bar{x})^2}{n-1}$	$L+\frac{\left(\frac{n}{2}-cf\right)}{f_m}\times c$	$=\frac{S}{x}$