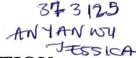
## BABCOCK UNIVERSITY AN YAN WY



## 2014/2015 FIRST SEMESTER EXAMINATION

COURSE CODE: STAT 101, COURSE TITLE: INTRODUCTORY STATISTICS

INSTRUCTION: Answer three questions out of five questions. Each question is 20marks.

LECTURER: Mr. Osundina S.A. & Mr. Bamisile O.O., TIME ALLOWED: Two hours.

5marks What is statistics? 1. a) 5marks b) Briefly explain data 5marks Differentiate between primary and secondary data c) 5marks

Construct the more-than cumulative frequency for the data below:

Age Interval	15-19	20-24	25-29	30-35
Number of Students(f)	40	30	20	10

2. a) Find the probability of getting a 3 or 5 while throwing a die.

8marks

b) A coin is tossed three times. Find the probability that it lands on head exactly one

8marks

c) A set S consists of points labeled  $\{1,2,3,4,5,6,7,8,9\}$ , and 10. If  $A = \{1,2,4,6,8,10\}$ , and

 $B = \{1,2,3,4\}$ . Find  $A \cap B$ 

4marks

3. Define the following:

a) Probability.

3 marks

b) Complementary Event

3 marks

c) Dependent Event

3 marks

d) Independent Event

3 marks

e) A manufacturer purchased two set of machines A and B. The probability that A will last for 5 years is  $\frac{4}{5}$  and the probability that B will last for 5 years is  $\frac{3}{4}$ . Hence

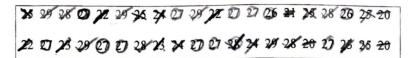
(i) Find the probability that both machines will last for 5 years.

4 marks

(ii) Only machine A will last for 5 years.

4 marks

4. The scores below represent the performance of 40 students on a 30marks achievement test in Introductory Statistics.



Calculate:

20-25

- a) Meanb) Median
- 20-2

- c) Mode
- d) Standard deviation

5marks 5marks 4marks 6marks

5. A population consists of the four numbers 3, 5, 7, and 9. Consider all possible

samples of size 2 that can be drawn without replacement. Find

- a) the mean of the population
- b) the standard deviation of the population
- c) the mean of the sampling distribution of means

5marks

8marks

7marks