

**COVENANT UNIVERSITY
NIGERIA**

*TUTORIAL KIT
OMEGA SEMESTER*

**PROGRAMME:
DEMOGRAPHY AND SOCIAL STATISTICS**

COURSE: CBS 121

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**DEPARTMENT OF ECONOMICS AND DEVELOPMENT STUDIES
COVENANT UNIVERSITY OTA
OMEGA SEMESTER 2014/2015
DEMOGRAPHY AND SOCIAL STATISTICS**

TUTORIAL QUESTIONS AND MODEL ANSWERS

**CBS 121
STATISTICS FOR BUS. & SOC. SCIENCES I**

BY

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QUESTIONS

- 1.) Measure of location is also known as _____
a.) Measure of dispersion b.) Measure of central tendency c.) Measure of non-central tendency
d.) All of the above
- 2.) Find the mean, median, mode, and range of the data set: 3, 5, 8, 3, 4, 2, 3
(a.) Mean: 4, Median: 4, Mode: 3, Range: 5 (b.) Mean: 4, Median: 3, Mode: 3, Range: 5
(c.) Mean: 4.5, Median: 3, Mode: 7, Range: 5 (d.) Mean: 5, Median: 3, Mode: 3, Range: 5
- 3.) $P_{50} = D_5 = Q_2 =$ _____
a.) Variance b.) Median c.) Probability distribution d.) Normal distribution
- 4.) The 25th percentile is also known as the first quartile (Q_1); the 50th percentile as the _____
or second quartile (Q_2); the 75th percentile as the third quartile (Q_3).
a.) Normal distribution b.) Variance c.) Median d.) Probability distribution
- 5.) Which one of the following is referred to as the population mean?
a.) Statistic (b.) μ (c.) Sample (d.) None of the above
- 6.) The U.S. Department of Education reported that for the past seven years 4,033, 5,652, 6,407,
7,201, 8,719, 11,154, and 15,121 people received bachelor's degrees in computer and
information sciences. What is the arithmetic mean annual number receiving this degree?
a.) About 12,240 (b.) About 8,327 (c.) About 6,217 (d.) About 15,962
- 7.) A disadvantage of using an arithmetic mean to summarize a set of data is
a.) The arithmetic mean sometimes has two values (c.) It can be used for interval and ratio data
a.) It is always different from the median (d.) It can be biased by one or two extremely small or
large values

- 8.) What is the relationship between the variance and the standard deviation?
 a.) Variance is the square root of the standard deviation (b.)Variance is the square of the standard deviation (c.)Variance is twice the standard deviation (d.)No constant relationship between the variance and the standard deviation
- 9.) The ages of all the patients in the isolation ward of the hospital are 38, 26, 13, 41 and 22. What is the population variance? (a.) 106.8 (b.) 91.4 (c.) 240.3 (d.) 42.4
- 10) The lengths of time (in minutes) several underwriters took to review applications for similar insurance coverage are: 50, 230, 52 and 57. What is the median length of time required to review an application?
 (a) 54.5 (b.) 141.0 (c.) 97.25 (d.)109.0
- 11) The weekly pocket money (In naira) of 8 students in Demography are 8500, 12250, 9500, 14000, 4500, 4250, 6250 and 5550.Find the students' average weekly pocket money.
 (a) N64, 800 (b) N4,800 (c) N8,100 (d) N6,800
- 12) The reaction time of a student to dust (evident by sneezing) on the field is measured as **0.53, 0.46, 0.50, 0.49, 0.52, 0.53, 0.44** and **0.55** seconds respectively. Determine the mean reaction time of the student to dust.(a) 0. 80 (b) 0.30 (c) 0.48 (d) 0.50
- 13) Given a set of number 5, 8, 10, 15, 24 and 28. Find the Arithmetic mean.
 (a) 4.5 (b.) 11.0 (c.) 7.25 (d.)15.0
- 14) A set of numbers consists of six 6's, seven 7's, eight 8's, nine 9's and ten 10's. What is the arithmetic mean of the numbers? (a) eight 8's (b.) nine 9's (c.) ten 10's (d.) 6's
- 15) Find the geometric mean of 6, 8, 10, 16
 (a)10 (b.) 6.139 (c.) 9.361 (d.)3.61
- 16) Calculate the harmonic mean of 6, 7, 8 and 9
 (a)9 (b.) 0.139 (c.) 6.361 (d.)1.63
- 17) Find the median of 6, 4, 1, 9, 8, 3, 7, 10, 5
 (a) 13 (b.) 11 (c.) 7.5 (d.)15.0

18) Find the median of the following ungrouped frequency table

X	2	4	6	8	10
F	15	12	23	6	4

- (a) 59.5 (b.) 141.5 (c.) 107.25 (d.)100.0

- 19.) Find the mode of the following set of observations: 1, 3, 5, 7, 9, 11, 7, 9, 7, 11, 12 and 15
 (a) 14 (b) 7 (c) 12 (d) 11

20) The table below shows the sample scores of students in CBS 121

X	60	70	80	90	95
F	85	76	92	102	98

(a) 92 (b) 102 (c) 92 (d) 106

ANSWERS

1) B 5) B 9.) D

3) B 7.) B 11) C

13) D 15) C 17) A 19) B