

**FACULTY OF BUSINESS****FINAL EXAMINATION**

Student ID (in Figures) :

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Student ID (in Words) :

Course Code & Name : **STA1314 BUSINESS STATISTICS**

Trimester & Year : September-December 2020

Lecturer/Examiner : Dr Smitha Geetha

Duration : 2 Hours

INSTRUCTIONS TO CANDIDATES

- This question paper consists of 2 parts:**
PART A (70 marks) : FIVE (5) short answer questions. Answers are to be written in the Answer Booklet provided.
PART B (30 marks) : TWO (2) long answer questions. Answers are to be written in the Answer Booklet provided.
- Candidates are not allowed to bring any unauthorized materials except writing equipment into the Examination Hall. Electronic dictionaries are strictly prohibited.**
- This question paper must be submitted along with all used and/or unused rough papers and/or graph paper (if any). Candidates are NOT allowed to take any examination materials out of the examination hall.**
- Only ballpoint pens are allowed to be used in answering the questions, with the exception of multiple choice questions, where 2B pencils are to be used.**

WARNING: The University Examination Board (UEB) of BERJAYA University College regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from BERJAYA University College.

PART A : SHORT ANSWER QUESTIONS (70 MARKS)

INSTRUCTION(S) : Answer all **FIVE (5)** questions. Write your answers in the Answer Booklet(s) provided

Question 1

a. Explain the process involved by using DCOVA framework.

(5 marks)

b. Identify any **FIVE (5)** properties of a good average.

(5 marks)

[Total: 10 marks]

Question 2

a. Describe how to develop null and alternative hypotheses.

(4 marks)

b. Interpret any **FOUR (4)** types of correlation.

(8 marks)

[Total: 12 marks]

Question 3

a. Calculate Mean, Median and Mode for the following data.

Size	10	12	15	20	22	28	30
Frequency	3	9	12	25	18	7	6

(12 marks)

b. Calculate the Range and the Coefficient of Range.

5	8	10	12	25	30	38
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(4 marks)

c. For the following values compute Standard Deviation.

5	8	7	11	9	10	8	2	4	6
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(4 marks)

[Total: 20 marks]

Question 4

a. What is probability and non-probability sampling techniques?

(4 marks)

b. How do you find the sample size for non-probability sampling?

(4 marks)

[Total: 8 marks]

Question 5

a. A die is thrown. Find the probability of getting

(i) A '4'

(ii) An even number

(iii) '3' or '5'

(iv) Less than 3

(8 marks)

b. A card is drawn from a pack of cards. What is the probability that it is

(i) A black card

(ii) A king

(iii) A queen

(iv) A spade

(v) A spade king

(vi) A king or a queen

(12 marks)

[Total: 20 marks]

END OF PART A

PART B**: LONG ANSWER QUESTIONS (30 MARKS)****INSTRUCTION(S)**

: Answer all **TWO (2)** questions. Write your answers in the Answer Booklet(s) provided.

Question 1

a. The scores of students in a test follow Normal Distribution with Mean = 80 and Standard Deviation = 15. A sample of 1000 students has been drawn from the population. Find

(i) Approximate number of students scoring between 65 and 95.

(5 marks)

(ii) The probability that a randomly chosen student has scores greater than 100.

(5 marks)

[Total: 10 marks]

Question 2

a. In a correlation analysis of 13 pairs of observations of x and y , the following values are obtained. Sum of the deviations of x and y values are -117 and -260; sum of the squares of deviations of x and y values are 1313 and 6580; sum of the products of deviations of x and y values is 2827. Find the coefficient of correlation.

(8 marks)

b. A computer while calculating correlation coefficient between two variables x and y from 25 pairs of observations obtained the following results. $n=25$, $\Sigma x = 125$, $\Sigma x^2 = 650$, $\Sigma y = 100$, $\Sigma y^2 = 460$, $\Sigma xy = 508$. It was however discovered, at the time of checking that two pairs of observations were not correctly copied. They were taken as (6,14) and (8,6) while the correct values were (8,12) and (6,8). Prove that the correct value of the correlation coefficient should be $2/3$.

(12 marks)

[Total: 20 marks]

END OF EXAM PAPER