ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF HUMANITIES, EDUCATION AND SOCIAL SCIENCES

DEPARTMENT OF EDUCATION AND LEADERSHIP DEVELOPMENT

EXAMINATION PAPER

PROGRAMME	:Bachelor of Education Honours in Psychology
COURSE CODE	:EPR 201
COURSE TITLE	:Research Methods and Statistics
SPECIAL REQUIREMENTS	: Calculator and Formula Sheet
DURATION	:3 Hours
DATE:	31 MAR 2021

INSTRUCTIONS TO CANDIDATES:

1. Answer any THREE questions but **NOT** more than **TWO** questions from one section.
2. Start each answer on a new page of your answer booklet.

SECTION A: RESEARCH METHODS

QUESTION 1

With the aid of examples, discuss the steps a researcher should take to develop a researchable topic.

QUESTION 2

An educational researcher adopted the mixed methods research approach to study the problem of zero percent Grade 7 pass rate in 35 schools in one district. Justify the relevance of the research approach.

QUESTION 3

Assess the usefulness of structured interviews in educational research.

SECTION B: STATISTICS

QUESTION 4

a) State any **two** characteristics of a normal distribution curve **(2).**

b) Table 1 shows the marks of 10 Ordinary Level learners in Biology and Chemistry.

Table 1

Learner	A	B	C	D	E	F	G	H	I	J
Biology	70	67	57	90	88	66	67	52	64	76
Chemistry	77	68	54	90	71	71	65	45	52	77

(i) Compute the median of the Biology scores. **(1)**

(ii) Calculate the standard deviation of the Chemistry scores. **(5)**

(iii) Find the z score of 90 in the Chemistry distribution. **(2)**

(iv) Given that the mean and the standard deviation of the Biology marks are 69.7 and 12.12 respectively, determine the subject in which learner D performed better. **(3)**

(v) Compute the Pearson Product Moment correlation coefficient of the Biology and Chemistry scores. **(10)**

(vi) Comment on the strength of the correlation coefficient. **(2).**

QUESTION 5

Table 2 shows the frequency of marks obtained by ZEGU students in a Statistics in-class test.

Table 2

Mark	**65**	**53**	**48**	**75**	**82**
Frequency	**5**	**4**	**3**	**2**	**1**

a) How many students wrote the test? **(2)**

b) What is the median of the marks? **(2)**

c) Calculate the variance of the marks. **(6)**

d) State any **one** limitation of the mode. **(1)**

f) State any **one** strength of non-probability sampling. **(1)**

e)Table 3 shows marks obtained by 12 students in two tests.

Table 3

Test 1 (x)	**75**	**75**	**65**	**75**	**70**	**70**	**70**	**70**	**81**	**68**	**68**	**72**
Test 2 (y)	**77**	**82**	**70**	**77**	**71**	**77**	**70**	**77**	**82**	**70**	**71**	**71**

i) Calculate the Spearman Rank Order correlation coefficient. **(10)**

ii) Comment on the strength of the correlation coefficient. **(3)**

QUESTION 6

a) State any **two** characteristics of positivism. **(2)**
b) Define the concept variable with the aid of an example. **(2)**
c) Explain the concept of interviewer bias. **(2)**

Table 4 shows the marks of 10 BEd students in Psychology and Sociology.

Psychology	56	73	88	55	80	66	53	75	79	58
Sociology	57	78	84	52	92	62	50	73	76	55

d) Compute the variance of the Psychology scores. **(6)**

e) Calculate the Pearson Product Moment correlation coefficient of the Psychology and Sociology scores. **(10)**

f) Comment on the strength of the correlation coefficient. **(3)**

THE END