

**UNIVERSITY OF FORT HARE**

**RESEARCH METHODOLOGY  
HUS 321**

**SUPPLEMENTARY EXAMINATIONS**

**JANUARY**

**2019**

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**Time: 3 hours**  
**Subject: HUS 321**  
**Marks: 100**

**This paper consists of 4 pages including the cover page**

**Internal Examiner**

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**INSTRUCTIONS**

**Answer all the questions.**

### Question 1

Discuss the following types of research. Focus your answer on a definition, assumptions, design and methods:

1.1 Epidemiology research (12)

1.2 Experimental research (12)

[24]

### Question 2

A research project reported on the differences between two groups. The data is presented in Table 1. Interpret the results and draw a graph to illustrate the spread of the data between the two groups.

Table 1: Results for the fitness level of swimmers.

Variable	Group	Mean	SD	Sign
Fitness	Provincial swimmers	35%	4%	.003
	Olympic swimmers	47%	5%	

[20]

### Question 3

What does the following abbreviations stand for and indicate when you would use such a statistical test:

3.1 ANOVA (2)

3.2 MANOVA (2)

[4]

#### Question 4

The analysis of a correlation is presented in Table 2. Interpret the results by making use of a decision table in research.

Table 2: The correlation between strength and speed in athletes.

		Strength	Speed
Strength	Correlation coefficient	1	.125
	P-value (Sign)	-	.439
	N	300	300
Speed	Correlation coefficient	.125	1
	P-value (Sign)	.439	-
	N	300	300

[15]

#### Question 5

Define the following constructs in research:

5.1 Probability (2)

5.2 Statistical power (2)

5.3 Effect size (2)

5.4 Confidence interval (2)

5.5 Survey research (2)

5.6 Quasi-experimental research (2)

[12]

### **Question 6**

6.1 Define reliability and validity in research (6)

6.2 Name and discuss four types of validity (12)

6.3 Name three methods to establish reliability of a test (3)

6.4 Name four qualities a researcher should investigate before a decision is made to use a specific test (4)

[25]

Total: [100]