



**UNIVERSITY OF RUHUNA**  
**FACULTY OF MANAGEMENT AND FINANCE**

No of Pages : 05  
No of Questions: 05  
Total Marks :70

BACHELOR OF BUSINESS ADMINISTRATION DEGREE

4000 LEVEL FIRST SEMESTER END EXAMINATION –  
AUG./SEP. 2023

*Three Hours*

**HRM 41403 - DATA ANALYSIS FOR RESEARCH**

Academic year – 2022/2023

**Instructions**

- ➔ This question paper contains five (05) questions
- ➔ Answer all questions



**01.**

- i. Explain the main steps involved in a research process. (04 Marks)
- ii. Compare and contrast quantitative research with qualitative research using suitable examples. (06 Marks)
- iii. Is it possible to make sound managerial decisions without business research? Briefly discuss. (04 Marks)

**(Total Marks 14)**

**02.**

- i. Explain the difference between ordinal and ratio scales of measurement. (04 Marks)
- ii. Using an example, describe the operationalization of a concept of your interest, including dimensions and indicators/elements. (05 Marks)
- iii. The following Tables 1 and 2 show the reliability statistics for question items in measuring employee job satisfaction. What is your interpretation of the result concerning the reliability of the items? (05 Marks)

Table 1

Reliability Statistics	
Cronbach's Alpha	No. of Items
.566	4

Table 2

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Job satisfaction JS1	5.88	1.572	.507	.732
Job satisfaction JS2	5.84	1.497	.470	.749
Job satisfaction JS3	5.83	1.245	.619	.669
Job satisfaction JS4	5.81	1.249	.652	.649

(Total Marks 14)

03. A group of researchers conducted a mini-research to examine the relationship between time spent on sports/entertaining activities (average hours per week) and the mental wellbeing of final-year undergraduates of a particular academic semester in a state university.

Correlations			
		Time spent on sports/entertaining activities	Mental wellbeing
Time spent on sports/entertaining activities	Pearson Correlation	1	.821**
	Sig. (2-tailed)		.000
	N	623	623
Mental wellbeing	Pearson Correlation	.821**	1
	Sig. (2-tailed)	.000	
	N	623	623

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Answer the que

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Table 1

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Table 2

Mental wellbeing	E v a I v r :

Answer the questions below based on the results of the above correlation table.

- i. What is the sample size of this study? (01 Mark)
- ii. Write down the hypothesis for the relationship between the variables indicated in the table. (01 Mark)
- iii. What is your interpretation regarding the strength of the relationships between the variables denoted by the Pearson correlation coefficient? Explain. (06 Marks)
- iv. The following tables 1 and 2 present information on mental well-being between male and female groups. Identify whether there is a statistical difference in mental well-being between the groups by interpreting the results of the independent sample t-test.

Table 1

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Mental wellbeing	Female	269	3.6716	.85517	.10370
	Male	354	3.7083	.72710	.12853

Table 2

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Mental wellbeing	Equal variances assumed	6.503	.069	.610	98	.834	-.03676	.17511	-.38426	.31073
	Equal variances not assumed.			-.223	70.64	.824	-.03676	.16515	-.36610	.29257

(06 Marks)

(Total Marks 14)

04. Answer the questions based on the outputs of multiple regression analysis given in Table 1 and 2 below.

Table 1

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.773 <sup>a</sup>	.598	.525	20.78401

Table 2

Coefficient <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	74.787	31.386		2.383	.000
	Job-based training (JT)	.298	1.909	.233	.680	.032
	Performance-based incentives (PI)	.418	3.972	.427	.181	.001
	Supervisor support (SS)	.366	.249	.334	-.665	.010
	Physical working conditions (WC)	-.018	.065	-.043	-3.741	.078
a. Dependent Variable: Employee task performance						
b. Predictors: (Constant), Job-based training (JT), Performance-based incentives (PI), Supervisor support (SS), Physical working conditions (WC)						

- Propose a suitable title for this study. (01 Mark)
- List four hypotheses for this study. (04 Marks)
- What is your interpretation regarding the results of the multiple regression of this study? Explain with statistical evidence. (06 Marks)
- Which variable has the highest influence on the employee task performance? Briefly justify the potential reason for the highest influence of the variable considering the current employment conditions of Sri Lanka. (03 Marks)

(Total Marks 14)

05. Explain **only four (04)** of the following with suitable examples.

- i. Benefits of using SPSS in analyzing research data.
- ii. Measures of Dispersion
- iii. Normal Distribution
- iv. Correlations Analysis
- v. Characteristics of Qualitative Research

(Each carries 3.5 Marks)

**(Total Marks 14)**

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