

UNIVERSITY OF JAFFNA, SRI LANKA
FACULTY OF ALLIED HEALTH SCIENCES

THIRD YEAR FIRST SEMESTER EXAMINATION IN BPharmHons – 2023

PHARM 3173 RESEARCH METHODOLOGY AND MEDICAL STATISTICS

Date: 06.12.2024

Time: 03 Hours

ANSWER ALL THE FOUR QUESTIONS

Answer Part A, Part B and Part C in separate answer books

PART - A

- | | | | |
|----|-----|--|------------|
| 1. | 1.1 | 1.1.1 Define research. | (10 Marks) |
| | | 1.1.2 List basic steps in a research process and explain each. | (30 Marks) |
| | 1.2 | 1.2.1 What is literature search? | (10 Marks) |
| | | 1.2.2 Briefly explain the purpose of the literature search. | (30 Marks) |
| | 1.3 | 1.3.1 Define study design. | (10 Marks) |
| | | 1.3.2 Differentiate Cohort study and Cross -sectional study. | (10 Marks) |

PART - B

- | | | | |
|----|-----|---|------------|
| 2. | 2.1 | Define the followings. | |
| | | 2.1.1 Consent form | (10 Marks) |
| | | 2.1.2 Plagiarism | (10 Marks) |
| | 2.2 | List the different elements of the research report. | (20 Marks) |
| | 2.3 | Briefly discuss the ethics needed for a researcher. | (60 Marks) |

PART - C

3.

Answer the question 3.1 with the given table

	Gender of the patient	
	Male	Female
BMI (Kg/m ²)	24	29

P=1.000

- 3.1 3.1.1 Name the possible statistics which may be used to find the relationship between the variables (10 Marks)
- 3.1.2 Give the reason for above statistics (10 Marks)
- 3.1.3 Interpret the result (10 Marks)
- 3.1.4 What are the reporting errors in the table (05 Marks)
- 3.2 3.2.1 A pharmacist want to determine whether medicine “SPK” for the treatment of blood pressure is effective or not. Write the suitable statistic/s. (10 Marks)
- 3.2.2 A researcher want to compare the GPA Difference and religious beliefs among the 16th batch of pharmacy students, University of Jaffna. Write the suitable statistic/s with reason. (15 Marks)
- 3.2.3 A researcher want to find the relationship between the eye colour (all possible colours) and colour blindness irrespective gender, height, religion, ethnicity of all Sri Lankan citizens.
- 3.2.3.1 Write the objective of the study (05 Marks)
- 3.2.3.2 Identify and write/mention the variables which are required to answer the objective. (write as minimum variable need to answer the objective) (05 Marks)
- 3.2.3.3 Name the suitable statistics to answer the objective with reason (10 Marks)
- 3.3 A researcher conducted statistical test for the variable of status of disease and ethnicity. The message appear below the statistical result table that “4 cells (50%) cells have expected count less than 5”. How would you advice the researcher to avoid warning and explain possible procedure to oblation a valid statistical result. (your answer must include the name of statistic/s) (20 Marks)

4 In the Jaffna district hospital, the registered patients are 2500 as a monthly visited clinic patients. Among them 100 patients were transferred to Colombo hospital. Further 200 patients did not visit last one year. Fifty patients are regularly visiting to hospital for only consulting but never visited to pharmacy to obtain medicine. A Researcher would like to estimate poly pharmacy practice in the district hospital. In literature search, the researcher found that poly pharmacy practice in Kandy District was 40% in 2022.

- 4.1 What is the more suitable study design? **(05 Marks)**
- 4.2 State/write the population size. **(05 Marks)**
- 4.3 write the sampling frame number **(10 Marks)**
- 4.4 Calculate the sample size **(20 Marks)**
- 4.5 List different sampling method **(15 Marks)**
- 4.6 Write most appropriate population for each sampling method mention in 2.5 **(25 Marks)**
- 4.7 Briefly explain the following:
 - 4.7.1 one tail test and two tail test **(10 Marks)**
 - 4.7.2 single Blind test and double blind test **(10 Marks)**