

Department of Management
School of Management and Business Studies
PhD Coursework Examination, 2021

Research Methodology and Statistics, DRM-101

Attempt any FIVE questions. Each question carries 12 marks. (12 X 5=60). Time : 3 Hrs

Q1. A researcher prepares an online survey to study whether teens trust new people they meet on social media. What kind of sampling process could the researcher prefer? Depending on the sampling method how much can the researcher generalize the findings of all teens in the population? Discuss in detail.

Q2. The current advertising campaign for a major soft drink brand would be changed if less than 30 percent of the consumers like it.

- a) Formulate the null and alternate hypothesis
- b) Discuss the type I and type II errors that could occur in hypothesis testing.
- c) Which statistical tool would you use? Why?
- d) A random sample of 300 consumers was surveyed and 84 respondents indicated that they liked the campaign. Should the campaign be changed? Why?

Q3. The results of a random sample of children with pain from musculoskeletal injuries treated with acetaminophen, ibuprofen, or codeine are shown in the table. At $\alpha = 0.05$, is there enough evidence to conclude that the treatment and result are independent? Design Hypothesis for the study.

	Acetaminophen	ibuprofen	codeine	
Significant Improvement	55	78	60	193
Slight Improvement	45	22	40	107
Total	100	100	100	300

Q4. Suppose we have the following observations:

{12 13 54 56 25 28 20 64 68 80 }

Determine the standard deviation, coefficient of skewness and draw box and whisker plot.

Q5. Discuss the importance of Literature review in a social science/ Management research and how it should be managed while writing a thesis? How are the broad titles and subtitles managed in a thesis? Discuss some latest methods.

Q6. Discuss the importance of qualitative analysis in deriving insights for behavioral studies. How does ethnography help in consumer studies?

Q7. E-mail has become a common form of communication in organizations and issued for both formal and informal communication. Some people complain that the frequent use of e-mail leads to miscommunication because they receive communications in e-mail that should be accomplished through face-to-face or telephone conversations, where there is an opportunity for interaction. You are interested in looking at this phenomenon. You are most interested in examining the effect of the e-mail use on organizational communication effectiveness. Design empirical research to address those issues.

- a. Describe your study in detail, thoroughly explaining the research design, sampling plan, data collection procedures for your research design.

Q8. You are assigned the task of studying the Impact of COVID on the physical & mental wellbeing of the people. Formulate the research objectives for the study. Design a questionnaire for the same using Likert, constant sum and semantic differential scales.