

RAJARSHI JANAK UNIVERSITY

FACULTY OF MANAGEMENT

OFFICE OF THE DEAN



M.Phil. in Management

Model Questions

First Year – First Semester

Effective from the Academic Batch of 2026 AD

Note: Researchers should not limit themselves to the chapters mentioned in model Questions as questions can be asked from any chapter (within the syllabus) in the examination.



RAJARSHI JANAK UNIVERSITY

FACULTY OF MANAGEMENT

Model Question -2026

M. Phil. in Management

Course: Philosophy of Management

Course Code: MPH 711

Year/Semester: First/ First

Credit Hrs: 3

Full Marks: 100

Pass Marks: 50

Time: 4 hours

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Group A: Case / Situation Analysis

[20 marks]

Case: AI-Based Performance Management at Himalayan Retail

Himalayan Retail Pvt. Ltd. is a rapidly expanding retail company with 25 branches across Nepal. To improve productivity and reduce operating costs, the company introduces an artificial-intelligence-based performance-management system. The system analyzes sales figures, attendance, customer ratings, inventory records, and employee communication patterns to calculate individual performance scores.

Based on these scores, the company plans to identify employees for promotion, training, salary increments, and possible termination. Senior management believes that the system will make decisions more objective and efficient. However, employees argue that the system is not transparent and that it does not consider important factors such as difficult customer interactions, branch location, family responsibilities, teamwork, or temporary health problems.

After three months, managers discover that employees in smaller branches and those serving rural customers are receiving lower scores than employees in high-volume urban branches. Some employees also claim that the system discriminates against older workers who are less comfortable with digital communication. The market seems to be changing with entry of young customers though the existing customer wants to be served by experience service provider Crue for human connection. The human resources department recommends continuing the system because it has reduced administrative time by 40 percent. The employee union, however, demands that all AI- based decision be suspended until the system is independently received as they argue the company has received this level of success through the same system. There is not only one way of doing things.

The chief executive officer must decide whether to continue, modify, or discontinue the system.

Questions**[4x5=20Marks]**

1. Explain the major managerial issues presented in the case.
2. Analyze the case using Contemporary Management Theories.
3. Evaluate the ethical issues involved, including fairness, transparency, privacy, accountability, employee dignity, and possible discrimination.
4. As a management consultant, recommend a suitable course of action to the chief executive officer. Justify your recommendation using relevant principles of management philosophy.

Group B: Analytical and Comprehensive Questions**Attempt eight questions out of nine****[8x10= 80 marks]**

2. Explain the major philosophical assumptions underlying management. Discuss how views about human nature, knowledge, freedom, and responsibility influence managerial practices.
3. Discuss the main principles of Taylor's Scientific Management. Critically examine its contribution and limitations from a philosophical perspective.
4. Explain Fayol's Administrative Management Theory. Compare their assumptions about authority, hierarchy, discipline, and organizational efficiency.
5. What is the Neo-Classical Theory of Management? Discuss the contribution of Hawthorne Studies and the Human Relations Movement to management thought.
6. Compare Classical and Neo-Classical theories of management with respect to their views on employees, motivation, communication, decision-making, and organizational performance.
7. Discuss contemporary management thoughts, including the systems approach, contingency approach, learning organization, and knowledge-based management.
8. Explain the Ethics beginnings where law ends.
9. Discuss their relationships between managerial ethics, corporate social responsibility, corporate governance, and stakeholder interests.
10. Examine the future trends in the philosophy of management. Discuss the implications of artificial intelligence, digitalization, sustainability, work place diversity, employee well-being, and responsible leadership.

****Best Wishes****



RAJARSHI JANAK UNIVERSITY

FACULTY OF MANAGEMENT

Model Question -2026

M. Phil. in Management

Course: Research Methodology and Philosophy

Course Code: MPH 712

Year/Semester: First/ First

Credit Hrs: 3

Full Marks: 100

Pass Marks: 50

Time: 4 hours

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Group A: Case / Situation Analysis

[20 Marks]

- 1. Carefully read the case given below, critically analyze it and answer the questions that follow:**

Can cancer patients' successful recovery be improved through quick and correct diagnosis, carefully following the doctor's instructions, and keeping the patients in peaceful and quiet surroundings? Theoretical Framework for Cancer patients' successful recovery is of main interest to the study, and successful recovery is expected to be predicted by three independent variables. Thus, recovery is the dependent variable in the study and the three independent variables are: (1) quick and correct diagnosis by the doctor; (2) careful following of instructions by the nurses; and, (3) peace and quiet in the vicinity. An intervening variable in the situation is rest, and a moderating variable is the stage of cancer. When the disease is quickly and correctly diagnosed by the doctor as soon as the patient comes in for the initial check-up, the chances of the patient being successfully cured of cancer are greater, since the cancerous growth would then be arrested in time. Also, when the nurses carefully follow the instructions of the doctor and administer to the patient the proper medicines at the right time, give them the diet as prescribed by the doctor, etc., the patients will recover without deteriorations. The human system needs certain medical, dietary and other aids to recover, which need to be administered at the right time and in the right quantities, and when this is done, the patients' recovery is almost assured. Peace and quiet in the vicinity of the patients will allow the patient to rest properly, without any disturbances, which in turn, would help the successful recovery of the cancer patient since the body would now have a chance to build new healthy cells through the rest created by the peaceful surroundings. Thus, rest is an intervening variable, which is facilitated by the peaceful and quiet surroundings. While following instructions, and peace and quiet would help the patients to successfully recover from cancer, these three will not influence the recovery for those patients who come for treatment at advanced stages. In other words, only those cancer victims who come for treatment at the early stages of the disease would be helped to recover successfully

when the doctor diagnoses the disease correctly and quickly, the nurses follow the doctor's instructions carefully, and the patients are kept in quiet and peaceful surroundings. Those coming for treatment while in the advanced stages will not be helped.

Questions:

1. What should be the research problem?
2. Identify the dependent, independent, Intervening and moderating variable and draw schematic diagram
3. Formulate possible three hypotheses
4. Which sampling technique would you apply and why?
5. Which statistical tools can be deployed to analyze data to test hypotheses set?

Group B: Analytical and Comprehensive Questions

Answer any eight questions out of nine.

(8 × 10 = 80 Mark)

2. Why do you think research is important for managers today? What are the common ethical issues in research?
3. Describe about the philosophies in research. Differentiate between positivism and interpretivism with suitable examples.
4. Describe different types of sampling with suitable examples. Differentiate between sampling error and non-sampling error in brief.
5. What are different types of data collection instruments? Describe about advantages and disadvantages of observations with suitable examples.
6. Why inductive approach is known as theory approach? How is it different from deductive approach? Explain it in detail
7. Define research design. Describe the features of exploratory research design. How is it different from descriptive research design?
8. Define hypothesis. Describe different types of hypothesis with suitable examples. What are the criteria of a good hypothesis?
9. A manager notices that employees are not happy with the organization. He finds that the productivity is deteriorating every day. Give appropriate explanation to the actual problem. Also explain the research process to be followed for conducting the study.
10. Choose a research topic of your areas of interest and expertise and then make three objectives, three research questions, three hypotheses and a theoretical framework based on the research.

****Best Wishes ****



RAJARSHI JANAK UNIVERSITY

FACULTY OF MANAGEMENT

Model Question -2026

M. Phil. in Management

Course: Fundamentals of Data Analysis

Course Code: MPH 714

Year/Semester: First/ First

Credit Hrs: 3

Full Marks: 100

Pass Marks: 50

Time: 4 hours

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Group A: Case / Situation Analysis

[20 marks]

Carefully read the story on A Research Study on Students' Learning and answer the questions that follow:

Story: A Research Study on Students' Learning

A researcher named **Maya** wanted to find out whether a new teaching method improved students' examination results. She selected 30 students, collected information from them, and analyzed the findings carefully.

Beginning the Study

Maya collected students' marks, attendance, study hours, and opinions about the new teaching method. The process of examining, organizing, and interpreting these facts to obtain useful information is called **data analysis**. Data analysis helps a researcher identify patterns, answer research questions, and draw conclusions.

The students' marks, attendance, and study hours were expressed in numbers. Therefore, they were **quantitative data**. Students' opinions, feelings, and descriptions of their learning experiences were **qualitative data**.

Maya entered the information into a spreadsheet. Each row represented one student, and each column represented a variable such as age, gender, attendance, or marks. This type of information is called **structured data** because it is arranged in a fixed and organized format, such as a table or database.

Two stages of Maya's data-analysis process were:

- **Data cleaning**, in which she checked and corrected errors.
- **Data interpretation**, in which she explained the meaning of the statistical results.

Exploring the Data

Before conducting a formal statistical test, Maya performed **exploratory data analysis**. Exploratory data analysis is the preliminary examination of data through tables, graphs, and

summary statistics to discover patterns, errors, relationships, and unusual observations. It is commonly used before formal statistical modeling or hypothesis testing.

Maya prepared a **histogram** of the examination marks. A histogram groups numerical observations into intervals and shows how frequently values occur. It helped her understand whether most students obtained low, medium, or high marks and whether the distribution was symmetric or skewed.

The students' marks were as follows:

45, 48, 50, 52, 54, 55, 56, 58, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 72, 74, 75, 76, 78, 80, 82, 85, 88, 91, 95

Maya wanted to calculate the measures of central tendency:

She also noticed that one student had received a very low mark of 20 because the student had been seriously ill. This unusually distant observation appears.

Understanding Skewness

Maya found that most students had marks between 50 and 85, but a few students had very low marks. The distribution was therefore not perfectly balanced.

This condition is called **skewness**. Skewness refers to the degree and direction to which a distribution is asymmetrical. If the long tail extends toward higher values, the distribution is positively or right-skewed. If the long tail extends toward lower values, it is negatively or left-skewed.

Cleaning the Data

Before analyzing the results, Maya performed **data cleaning**.

After applying a statistical test, Maya obtained a **p-value**.

Suppose Maya obtained:

$p = 0.03$

Because 0.03 is less than the commonly used significance level of 0.05, she would reject the null hypothesis and conclude that the new teaching method produced a statistically significant difference in average marks.

Maya also calculated a **confidence interval**. A confidence interval is a range of plausible values for a population parameter, estimated from sample data at a stated confidence level. For example, if the estimated improvement was 8 marks and the 95% confidence interval was 4 to 12 marks, Maya would report that the actual average improvement in the wider student population was plausibly between 4 and 12 marks.

The Central Limit Theorem and the t-Test

Maya studied a sample rather than every student in the university. The **Central Limit Theorem** helped her understand why sample results could be used to make conclusions about a larger population. It states that, when the sample size is sufficiently large, the distribution of sample

means tends to become approximately normal, even if the original population is not perfectly normal. This supports estimation and hypothesis testing.ox+1

Maya used an **independent samples t-test** to compare the average marks of two separate groups: students taught by the traditional method and students taught by the new method.

One assumption of an independent samples t-test is:

The observations in the two groups must be independent of one another.

This means that one student's mark should not influence another student's mark, and the same student should not be included in both groups. Other assumptions may include approximate normality and suitable measurement of the dependent variable.ybrandvain.github+1

Ethical Responsibility

Maya followed the ethical principle of **honesty and integrity**. She did not change the marks, hide unfavorable results, or report only the findings that supported her expectation. She also protected the students' identities and kept their responses confidential.

Questions

[10x2=20 Marks]

1. Define and find an outlier.
2. What is meant by data cleaning?
3. What is a p-value?
4. What is a confidence interval?
5. State the purpose of the Central Limit Theorem.
6. Mention one assumption of an independent samples t-test.
7. State one ethical principle in data analysis.
8. Suggest the measure of central dependency.
9. What is the purpose of a histogram?
10. What is exploratory data analysis?

Group B: Analytical and Comprehensive Questions

Attempt eight questions out of nine.

[8x10 = 80 marks]

2. Explain the scope and significance of data analysis in management research. Discuss the major stages of the data analysis process, from data collection to interpretation. Also explain the importance of transparency, reproducibility, and ethics in research data analysis.
3. Differentiate between quantitative and qualitative data, and between structured and unstructured data. Explain the suitability of each type of data for management research with relevant examples.
4. What is Exploratory Data Analysis (EDA)? Explain the role of summary statistics, histograms, boxplots, density plots, and scatter plots in EDA. How can EDA help a researcher identify patterns, anomalies, and outliers?

5. The monthly sales revenue of a company for six months is given below:

Month	Sales Revenue (NPR '000)
January	120
February	135
March	128
April	150
May	142
June	165

Calculate:

Analyse descriptively to Interpret the results from a managerial perspective.

6. Explain the major steps involved in data organization and management. Discuss how missing values, duplicate observations, coding errors, and outliers can affect the quality of research data. Suggest appropriate methods for handling each problem.

7. A researcher obtains the following observations for employee performance scores:

42, 45, 47, 48, 50, 52, 54, 56, 58, 95

- Identify whether the dataset contains a possible outlier using the IQR method.
 - Explain the steps used in the IQR method.
 - Discuss two possible ways of dealing with the identified outlier.
 - Explain why outlier treatment should be based on substantive and statistical reasoning.
8. Discuss the principles of effective data visualization in management research. Explain the appropriate use of bar charts, histograms, pie charts, scatter plots, boxplots, and dashboards. Also identify common mistakes that reduce the effectiveness of visualization.
9. A researcher wants to examine whether the average monthly income of a group of employees is significantly different from NPR 40,000.
- Formulate the null and alternative hypotheses.
 - Explain the steps involved in conducting a one-sample t-test.
 - Explain the meaning of the p-value and confidence interval.
 - State the decision rule at a 5 percent level of significance.
 - Explain how the result should be reported in a research study.
10. Compare the following non-parametric tests:
- Mann–Whitney U test
 - Wilcoxon Signed-Rank test
 - Kruskal–Wallis test
- For each test, explain its purpose, level of measurement, research design, and appropriate parametric alternative. Provide one management research example for each test.

****Best Wishes****



RAJARSHI JANAK UNIVERSITY

FACULTY OF MANAGEMENT

Model Question -2026

M. Phil. in Management

Course: Applied Econometrics

Course Code: MPH 715

Year/Semester: First/ First

Credit Hrs: 2

Full Marks: 100

Pass Marks: 50

Time: 3 hours

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Group A: Case / Situation Analysis

[20 marks]

1. You are given the following econometric model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + U$$

Where,

Y = Employee Productivity

X₁ = Training Hours

X₂ = Work Experience

X₃ = Absenteeism

Suppose the following regression output is obtained.

Variable	Coefficient (β)	Standard Error	t-value	p-value	Lower 95%	Upper 95%
Constant	28.75	3.15	9.13	0.000	22.56	34.94
Training Hours	0.96	0.18	5.33	0.000	0.61	1.31
Work Experience	0.58	0.21	2.76	0.007	0.17	0.99
Absenteeism	-1.24	0.30	-4.13	0.001	-1.83	-0.65

Model Statistics

Statistic	Value
R ²	0.81
Adjusted R ²	0.79
F-statistic	61.35
p-value	0.000

Required: Interpret the regression output by discussing:

- The estimated regression equation.
- The effect of each explanatory variable on employee productivity.
- The significance of individual regression coefficients using the t-test and p-values.
- The interpretation of the 95% confidence intervals.
- The goodness of fit of the model using R² and Adjusted R².
- The overall significance of the regression model using the F-test.

[2 + 4 + 4 + 3 + 4 + 3]

Group B: Analytical and Comprehensive Questions

Attempt any eight questions out of nine.

[8 × 10 = 80 marks]

2. Define econometrics. Discuss the steps of econometric methodology.
3. 'High-quality data and valid econometric models are the foundations of reliable managerial decisions.' Critically examine this statement with suitable examples.
4. What is the coefficient of determination (R^2)? Differentiate between R^2 and Adjusted R^2 . Explain its interpretation in evaluating regression models.
5. Discuss the role of regression analysis in HR analytics. Explain how regression models support human resource planning, employee performance evaluation, and turnover analysis.
6. Evaluate the statement: "Diagnostic testing is an indispensable step in applied econometrics because reliable managerial decisions depend on valid regression models." Discuss with appropriate examples.
7. Critically discuss the importance of binary outcome models in managerial decision-making and business analytics.
8. Describe the application of logistic regression in credit scoring and loan default prediction. Why is it widely used in the banking and financial sector?
9. What is time series data? Explain its characteristics and importance in business and management research.
10. Explain the applications of panel data models in productivity analysis and financial performance studies.

**** Best Wishes ****