

Roll No.

Department of Management
School of Management and Business Studies
Jamia Hamdard
ODD Semester Examination - December 2025
MBA- SEM III

Subject Name: Business Analytics

Max. Marks: 60

Subject Code: MBA-GE-OM-04

Time: 2.5 Hours

*Attempt as per instructions.

(5 x 12 = 60)

NOTE: Attempt any FIVE Questions. All questions carry equal marks

Q1: A study aims to explore the impact of increased fuel cost and Transportation efficiency on the productivity of a manufacturing unit. Design a conceptual diagram using the Classical Linear Regression Model (CLRM) and discuss the basic assumptions.

Q2: In what ways does the multidisciplinary nature of econometrics contribute to solving complex analytical problems?

Q3: The data on wheat production for a district is given below. Estimate the production of wheat for the years 2007 and 2008 by using the OLS method.

Year	Production (Tonnes)
2000	35
2001	38
2002	40
2003	38
2004	42
2005	44
2006	45

Q4: What do you understand by Multicollinearity in multiple regression analysis? What are the underlying causes of multicollinearity, and how can we overcome them?

Q5: Explain Specification errors with their conditions and consequences in regression analysis.

Q6: Define estimators in a regression model and discuss their properties.

Q7: What is the purpose of Time-series analysis? Explain additive and multiplicative models of Time-series analysis with a suitable diagram.

Q8: Write short notes on the following: a) Goodness-of-fit b) Heteroscedasticity