

**SHIVAJI COLLEGE, UNIVERSITY OF DELHI**

**DEPARTMENT OF ECONOMICS**

**INTERNAL TEST (Academic Year 2023-24)**

Name of the Course	: B.A.(P)	Semester: ...4..
Name of the Paper	: Basic Econometrics	Faculty Name : Nikita Gupta
Duration	: 40 minutes	Maximum Marks: 12
Date of Test	: 12.04.2024	

Q1 State whether the following are true or false. Give reasons. (3)

- i)  $Y_i = e^{B_1} + B_2 X_i + u_i$  is a linear regression model.
- ii) OLS is an estimating procedure that minimizes sum of errors.

Q2  $\bar{Y} = 367.693$   $\bar{X} = 8$   $n = 15$   $\sum x_i^2 = 280$   $\sum y_i^2 = 150$   $\sum e_i^2 = 50$   $\sum x_i y_i = 4250.9$

where Y is the consumption of coffee in cups per day and X is the price of coffee per cup.

- i) Find  $b_1$  and  $b_2$ .
- ii) Interpret intercept term. Does it make economic sense?
- iii) Interpret slope coefficient.
- iv) Find  $R^2$  and interpret it. (3+1.5+1+1.5)

Q3 State the Gauss Markov Theorem. (2)

*Nikita*

**Faculty Signature: Nikita Gupta**