

**G.V.M.'s Gopal Govind Poy Raiturcar College of
Commerce and Economics, Ponda Goa**

M.Com. Semester III
ISA II September 2023
COM 601: Basic Econometrics

Time: 1 hour

Marks: 20

Q.1. Fill in the Blanks (1 marks each)

- a) OLS becomes _____ when all the assumptions are followed in regression model.
- b) Rejecting Null hypothesis at 5% significance level is when P-value is _____.

Q.2. Answer any Four of the following (2marks each)

- i. Give functional forms of regression considering regression model is linear in parameter, though it may or may not be linear in variables.
- ii. Cross section data are often plagued by the problem of heteroscedasticity. Why?
- iii. What is Autocorrelation?
- iv. Why Adjusted R^2 is more efficient than R^2 ?
- v. Write down the process of checking and removing Heteroscedasticity in e-views.

Q.3. Answer any Three of the followings (5marks each)

- I. Build a model and interpret the following result from the model.

Y= consumption, X_1 = Income, X_2 = Wealth

Dependent Variable: CONSUMPTION

Method: Least Squares

Date: 09/07/23 Time: 16:24

Sample: 1 30

Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16222.97	5436.061	2.984324	0.0060
INCOME	0.641166	0.166878	3.842131	0.0007
WEALTH	0.148788	0.041327	3.600281	0.0013

R-squared	0.847738	Mean dependent var	52347.37
Adjusted R-squared	0.836459	S.D. dependent var	31306.54
S.E. of regression	12660.43	Akaike info criterion	21.82499
Sum squared resid	4.33E+09	Schwarz criterion	21.96511
Log likelihood	-324.3748	Hannan-Quinn criter.	21.86982
F-statistic	75.16274	Durbin-Watson stat	2.211726
Prob(F-statistic)	0.000000		

- II. The accuracy of the estimated parameters depends upon the correct specification of the model. Elaborate on Misspecification of model.
- III. $R^2 = 1 - \frac{RSS}{TSS}$, explain with the help of graph.