JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATIONS-2022

HSS PhD - II Semester

COURSE CODE: 21P1WHS132 MAX. MARKS: 25

COURSE NAME: ECONOMETRICS

COURSE CREDITS: MAX. TIME: 1 Hour 30 Min

Note: *All questions are compulsory. Marks are indicated against each question in square brackets.*

1. Write short notes on (max 50 words): **[2x4 = 8] (CO1)**

a) Population regression function

b) Partial regression coefficients

c) Adjusted R^2

d) BLUE

2. Consider the following regression model: **[5] (CO3)**

$$Y_i = \beta_1 + \beta_2 \text{ Education} + \beta_3 \text{ Experience} + u_i$$

Suppose both Education and Experience are significant variables. If you leave out one of the variable, what kind of problem you may face? Discuss.

3. "Auxiliary Regression helps in the detection of Multicollinearity". Discuss the method. **[5] (CO4)**

4. "In the presence of heteroscedasticity, OLS estimators are biased as well as inefficient". Discuss the statement with the help of suitable example. **[4] (CO4)**

5. Given a sample of 100 observations and 4 explanatory variables, what can you say about autocorrelation if: **[1X3 = 3] (CO3)**

a) d = 1.05

b) d = 1.40

c) d = 3.97