

Name:

Enrolment No:

**UNIVERSITY OF PETROLEUM & ENERGY STUDIES**

**End Semester Examination (Online) – July, 2020**

**Program: MBA (AVM + ET)**

**Semester: II :**

**Subject/Course: Econometrics**

**Max. Marks: 100**

**Course Code: ECON 8001**

**Duration : 3 Hours**

**IMPORTANT INSTRUCTIONS**

1. The student must write his/her name and enrolment no. in the space designated above.
2. The questions have to be answered in this MS Word document.
3. After attempting the questions in this document, the student has to upload this MS Word document on Blackboard.

		<b>Marks</b>	<b>COs</b>
Q.1	How do you model the relationship between job training and worker productivity? Specify the modelling steps with types of data will be used in the study.	20	CO 1
Q.2	What are the different types of data used in the econometric analysis? Do you think the choice of econometric modelling depends on the choice of data set, Explain with your justification?	20	CO 3
Q.3	If you are given the regression output from a bivariate econometric model between CEO salary and return on equity, where salary is measured in thousands of dollars and Return on equity of the CEO's firm is measured in percentage. $salary = \beta_0 + \beta_1 roe + u$ $\widehat{salary} = 963.191 + 18.501 roe$ $n = 209, \quad R^2 = 0.0132$	20	CO 3

	Interpret the above regression output. How you can further improve the above regression model?S		
Q.4	Explain the steps of the econometric modelling process with an example from your domain.	20	CO 2
Q.5	<p>The following results have been obtained from a sample of 11 observations on the value of sales (Y) of a firm and the corresponding prices (X).</p> $\bar{Y} = 217.82 \quad \bar{X} = 519.18 \quad \sum X_i Y_i = 1,296,836 \quad \sum X_i^2 = 3,134,543 \quad \sum Y_i^2 = 539,512$ <p>Estimate the regression line of sales on price and interpret the results. What is the part of the variation of sales which is not explained by the regression line? Estimate the price elasticity of sales.</p>	20	CO 2