THE OPEN UNIVERSITY OF SRI LANKA
DEPARTMENT OF SOCIAL STUDIES
BA DEGREE IN SOCIAL SCIENCES - LEVEL 05
FINAL EXAMINATION – 2023/2024 (Semester I)
DSU5337 – PRINCIPLES OF ECONOMETRICS
DURATION: THREE HOURS (03 HOURS) ONLY

Date: 13th January 2024 | **Time: 09.30 a.m. – 12.30 p.m.**

Instructions:

- **Answer any five (05) questions ONLY.**
- **Non-programmable calculators are allowed.**

1) State whether the following statements are true, false, or uncertain. Justify your answers.

   a) An estimator of a parameter is a non-random, but the parameter is random.
   b) The assumptions made by the classical linear regression model (CLRM) are necessary to compute the OLS estimator.
   c) The theoretical justification for OLS is not provided by the Gauss-Markov theorem.
   d) If two variables are independent, their correlation coefficient will always be one.
   e) The stochastic error term Ui and residual term ei mean the same thing.
   f) The population regression function gives the value of the dependent variables corresponding to each value of the independent variable.
   g) A linear regression model means a model linear in the parameter not in the variable.
   h) In the linear regression model the explanatory variable is the cause and the dependent variable is the effect.
   i) In practice, the two–variable regression model is useless because the behavior of a dependent variable can never be explained by a single explanatory variable.