QP CODE: 23145029

Reg No : Name Ξ.

M A DEGREE (CSS) EXAMINATION, NOVEMBER 2023

Third Semester

Faculty of Social Sciences

MA Econometrics

CORE - EM010305 - ECONOMETRICS OF LIMITED DEPENDENT VARIABLE MODELS AND NON LINEAR REGRESSION

2020 ADMISSION ONWARDS

D6634C56

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

Answer any eight questions.

Weight 1 each.

- 1. Define Linear probability model. List out it's limitations.
- 2. Describe Polychotomous variable.
- 3. What is Nested Multinomial Logit Model?
- 4. Explain Bayes' Rule.
- 5. Why do we use a truncated regression?
- 6. Differentiate between frontier regression models and ordinary regression models
- 7. Difference between hazard rate and hazard ratio.
- 8. Sample selection bias
- 9. What do you mean by non-linear least square estimator? How is it different from linear least square estimator?
- 10. What does non-parametric regression mean ? Give example.

(8×1=8 weightage)

Part B (Short Essay/Problems)

Answer any six questions.

Weight 2 each.

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11. Briefly discuss probit model.



- 12. Discuss Hetererogeneity and the negative binomial regression.
- 13. Briefly explain about Conditional Logistic Models.
- 14. What is a truncated distribution? Explain its various types
- 15. Distinguish between truncated and censored regression models.
- 16. Explain Heckman correction approach.
- 17. Explain likelihood ratio test statistic with respect to hypothesis testing in non-linear least square estimation.
- 18. Discuss about log-linear and partially linear models.

(6×2=12 weightage)

Part C (Essay Type Questions)

Answer any **two** questions.

Weight **5** each.

- 19. Explain Logit model with randomized data.
- 20. Explain Mcfadden's Conditional Logit.
- 21. Compare and contrast between the process of truncation, censoring and sample selection
- 22. Discuss about different types of Models of Duration.

(2×5=10 weightage)