



QP CODE: 26019622



Reg No :

Name :

MA DEGREE (CSS) EXAMINATION MARCH 2026

Fourth Semester

MA Econometrics

ELECTIVE - EM800403 - EXPERIMENTAL DESIGN AND CLIOMETRICS

2020 Admission Onwards

A32F9E87

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

Answer any **eight** questions.

Weight **1** each.

1. Define selection bias.
2. Why randomization is used?
3. State the differences between natural experiments and randomized natural experiments.
4. What is Split sample IV?
5. What is Randomized Trials?
6. What is Fixed Data?
7. What is CQF?
8. What is Nonstandard Standard Error?
9. Why do we need to learn cliometrics?
10. What are some of the major criticisms about cliometrics?

(8×1=8 weightage)

Part B (Short Essay/Problems)

Answer any **six** questions.

Weight **2** each.

11. Distinguish between randomized and non randomized controlled trials.
12. Explain the benefits of stratification.
13. Explain the practical challenges and ethical issues associated with Randomized Control Trials.
14. Write a short note on Local Average Treatment Effects.
15. What is Limited Dependent Variable Reprise ?
16. Explain RDD and its estimation.
17. Briefly explain Matching method in Experimental Design.
18. Discuss some of the econometric techniques used in cliometrics.

(6×2=12 weightage)





Part C (Essay Type Questions)

Answer any **two** questions.

Weight 5 each.

19. Explain the regression estimates of stratified randomized experiments.
20. Interpret the following results from Rstudio

```
# add rincome to the dataset
CigarettesSW$rincome <- with(CigarettesSW, income / population / cpi)

c1995 <- subset(CigarettesSW, year == "1995")

# estimate the model
cig_ivreg2 <- ivreg(log(packs) ~ log(rprice) + log(rincome) | log(rincome) +
                    saletax, data = c1995)

coeftest(cig_ivreg2, vcov = vcovHC, type = "HC1")
#>
#> t test of coefficients:
#>
#>           Estimate Std. Error t value Pr(>|t|)
#> (Intercept)   9.43066    1.25939   7.4883 1.935e-09 ***
#> log(rprice)  -1.14338    0.37230  -3.0711 0.003611 **
#> log(rincome)  0.21452    0.31175   0.6881 0.494917
#> ---
#> Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

21. Explain the Difference in Difference method with an Example.
22. Explain the origin of Cliometrics.

(2×5=10 weightage)

