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4 SEM TDC ECOH (CBCS) C 8

2025

(May/June)

ECONOMICS

(Core)

Paper : C-8

(**Advanced Microeconomics**)

Full Marks : 80

Pass Marks : 32

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Answer the following as directed : 1×8=8

(a) General equilibrium is based on the assumption of

(i) imperfect competition

(ii) perfect competition

(iii) change in production technique

(iv) All of the above

(Choose the correct option)

(2)

- (b) An economy is said to be inefficient if it stays inside the production possibility curve.

(Write True or False)

- (c) State the compensation criteria.
(d) Who developed the concept of 'social welfare function'?

- (e) What do you mean by bilateral monopoly?

- (f) When there are two sellers in the market, it is known as

(i) bilateral monopoly

(ii) duopoly

(iii) monopoly

(iv) None of the above

(Choose the correct option)

- (g) Which one of the following is a source of market failure?

(i) The existence of externalities

(ii) Monopoly or imperfect market

(iii) The existence of public good

(iv) All of the above

(Choose the correct option)

- (h) Who developed the concept of game theory?

(3)

2. Write short notes on any *four* of the following : 4×4=16

(a) Equity and efficiency

(b) Kinked demand curve

(c) Moral hazards

(d) Externalities

(e) Repeated games

3. (a) Explain the Kaldor-Hicks compensation principle with utility possibility curve. Point out its limitations. 8+4=12

Or

- (b) What is social welfare function? Critically discuss it with the help of grand utility possibility curve. 4+8=12

4. (a) When is price discrimination possible? Show how price discrimination may result in a higher output in comparison to single-price monopoly. 3+8=11

Or

- (b) What is monopolistic competition? Illustrate, with a diagram, the price and output determination of a firm under monopolistic market in the long-run. 3+8=11

5. (a) What is collusive oligopoly? How are price and output determined under collusive oligopoly? 3+8=11

Or

- (b) What is cartel? Explain how a cartel determines price and output of a product to maximise joint profits. 3+8=11

6. (a) Explain the concept of Prisoner's dilemma with the help of an example. 11

Or

- (b) What is game theory? Discuss its importance and applications. 3+4+4=11

7. (a) What are negative and positive externalities? How can the presence of such externalities lead to market failure? 3+8=11

Or

- (b) What are public goods? What are the characteristics of public goods? Why should public goods be produced by the government? 3+4+4=11

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4 SEM TDC ECOH (CBCS) C 10

2025

(May/June)

ECONOMICS

(Core)

Paper : C-10

(Introductory Econometrics)

Full Marks : 80

Pass Marks : 32

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Answer the following questions/Choose the correct option : 1×8=8
- (a) What do you understand by 'regression'?
 - (b) Mention one limitation of econometrics.
 - (c) What is a null hypothesis?
 - (d) What is specification error?
 - (e) Which of the following is a consequence of heteroscedasticity?
 - (i) The OLS estimator are no longer BLUE

(2)

- (ii) The explanatory variables are correlated
- (iii) Intercept is zero
- (iv) None of the above
- (f) Breusch-Pagan test is used to detect
- (i) autocorrelation
- (ii) multicollinearity
- (iii) heteroscedasticity
- (iv) All of the above
- (g) Which of the following best describes a Type I error?
- (i) The null is true, but we mistakenly reject it
- (ii) The null is false and we reject it
- (iii) The null is false, but we fail to reject it
- (iv) The null is true, but we fail to reject it
- (h) Which of the following is used to test the overall significance of a regression model?
- (i) t -test
- (ii) Z -test
- (iii) F -test
- (iv) χ^2 -test

(3)

2. Answer any four of the following : $4 \times 4 = 16$
- (a) Explain the rationale of the random disturbance term in regression model.
- (b) " u_t 's are iid." Explain the statement in relation to standard assumptions of OLS.
- (c) Write briefly about Type I and Type II error.
- (d) Explain power of a test.
- (e) Briefly describe the properties of a good estimator.
- (f) "The construction of an economic model involves the specification of the relationships that constitute it." Explain the statement.
3. (a) What is dummy variable? Explain the concept of dummy variable with the help of an example. $2+8=10$
- Or
- (b) Discuss the concept of goodness of fit in a simple linear regression model. Distinguish between R^2 and \bar{R}^2 . $5+5=10$
4. (a) What is multicollinearity? Discuss the causes and different methods of detection of multicollinearity. $2+8=10$
- Or
- (b) Explain the various remedial measures of multicollinearity in regression model. 10

5. (a) Explain what you understand by heteroscedasticity. Analyze the causes of heteroscedasticity. $6+6=12$

Or

- (b) Explain any two methods of testing heteroscedasticity in regression model. $6+6=12$

6. (a) Define autocorrelation. Explain the various sources of autocorrelation. What are the consequences of autocorrelation? $4+4+4=12$

Or

- (b) Explain Durbin-Watson test and Durbin's h -test of detecting autocorrelation. $6+6=12$

7. (a) Omission of relevant variables and inclusion of irrelevant variables are two types of incorrect model specifications in linear regression model. Explain the statistical consequences arising from both the situations. $6+6=12$

Or

- (b) Explain the various tests of detecting specification error. Explain the concept of errors in variables in econometrics. $8+4=12$
