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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester MA Economics Degree Examination, April 2024

MEC2C05 – Micro Economics Theory and Applications – II

(2022 Admission onwards)

Time: 3 hours   Max. Weightage : 30

PART A
Objective Type Questions
Answer all questions (Weightage for each question is $1/_5$. Total Weightage – 3)

1. A scientific paper titled "The Tragedy of the Commons" was written by

   (a) Walras   (c) Garrett Hardin

   (b) Kaldor   (d) Pareto

2. Which criterion refers to economic efficiency which can be objectively measured

   (a) 'Cardinalist' Criterion

   (b) Bentham's Criterion

   (c) The Pareto-Optimality Criterion

   (d) The Kaldor-Hicks 'Compensation Criterion'

3. The permanent increment to future consumption expressed as a fraction of the initial consumption forgone is.....

   (a) rate of return   (b) perpetual rate of return

   (c) expected return   (d) All of the above

4. An outcome is Pareto efficient if

   (a) No person can be made better off without making someone worse off

   (b) Everybody can be made better off

   (c) At least one person can be made better off

   (d) Every person maximizes payoff given the payoff of others.

5. The standard economic model assumes people are

   (a) Rational   (b) boundedly rational

   (c) altruistic   (d) Emotional

6. A market participant who obeys the principles of rational expectations will base his or her expectations of market price on

   (a) all possible information about supply and demand curves.

   (b) all possible information about the history of price movements.

   (c) rational behavior by other market participants.

   (d) rational behavior by government regulators.

7. An example of adverse selection is

   (a) purchasing a new car sight unseen based on the recommendation of a neighbour.

   (b) high health insurance premiums resulting from the poor health of people who buy policies.

   (c) suppliers who charge more for better quality clothing than for lower quality clothing.

   (d) being talked into buying a low-quality item because the price is lower.

8. Health care markets may be inefficient because of

   (a) poor information ('ignorance').   (b) adverse selection.

   (c) moral hazard.   (d)all of the above.

9. Taking into account the utility of all persons in society is referred to as

   (a) a utilitarian social welfare function.   (b) equalizing social welfare function.

   (c) an in-kind transfer.   ·(d) a Pareto equilibrium.

10. A merit good:

   (a) Is a public good   (b) Involves a negative externality

   (c) Is overprovided in the free market   (d) Is under provided in the free market

11. A negative production externality means:

   (a) The social marginal cost is greater than the private marginal cost

   (b) The social marginal benefit is greater than the private marginal cost

   (c) The social marginal cost is greater than the private marginal benefit

   (d) The social marginal cost is less than the private marginal cost

12. Community surplus equals:

   (a) Producer surplus minus consumer surplus

   (b) Profits plus utility

   (c) Total utility minus plus profit

   (d) Consumer surplus plus producer surplus

13. Bargaining costs are generally high in cases involving environmental externalities because

   (a) there are strong incentives to be a free rider.

   (b) many individuals may be affected by the externalities.

   (c) it is difficult to measure the costs of the externalities.

   (d) all of the above.

14. To reach an economically efficient output level, the size of an excise tax imposed on a firm generating a negative externality should be

   (a) the firm's marginal cost.

   (b) the social marginal cost.

   (c) the difference between the social marginal cost and the firm's marginal cost.

   (d) the sum of the social marginal cost and the firm's marginal cost.

15. The risk premium for a capital investment by comparing the expected return on that investment with the expected return on the entire stock market is measured by

    (a) Diversifiable risk   (b) Non diversifiable risk

    (c) Capital Asset Pricing Model   (d) None of the above

PART B
Short Answer Questions
Answer any 5 (Weightage for each question is 1. Total Weightage – 5)

16. Discuss the idea of demand for future goods

17. Compare diversifiable and non-diversifiable risks

18. Define externality

19. Describe non-excludability

20. What is mean by asymmetric information?

21. Define behavioral economics

22. What is Heuristics?

23. Define market signalling

PART C
Short Essay Questions
Answer any 7 (Weightage for each question is 2. Total Weightage – 14)

24. Examine present discounted value approach in investment decisions

25. Discuss the inter-temporal utility maximization and examine the effect of changing interest rates in it.

26. Explain the Kaldor-Hicks' compensation criterion

27. Write a brief note on theory of second best

28. Examine the case of Pareto-efficiency in product-mix

29. Explain how the provision of public goods caused market failure

30. Discuss the case of positive and negative externality in consumption and production

31. Briefly explain the efficiency-wage theory

32. Discuss the case of insurance market with asymmetric information

33. Explain principal-agent problem

PART D
Essay Questions
Answer any 2 (Weightage for each question is 4. Total Weightage – 8)

34. Critically examine Capital Asset Pricing Model (CAPM)

35. Explain Arrow's impossibility theorem in the context of welfare economics

36. What are property rights? How Coase-theorem explain the issue of property rights?

37. What is social welfare function? Examine various criteria to measure social welfare.

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester MA Economics Degree Examination, April 2024

MEC2C06 – Macro Economics Theory and Policies – II

(2022 Admission onwards)

Time: 3 hours   Max. Weightage : 30

SECTION A

Answer all questions. Each question carries 0.2 Weightage

1. Which concept emphasizes the separation of real and nominal variables in an economy?

   A) Say's Identity   B) Walrasian System

   C) Classical Dichotomy   D) Arrow-Debreu Mode

2. What does Samuelson's overlapping generations' model primarily focus on?

   A) Long-term economic growth   B) Intergenerational income distribution

   C) Market equilibrium under perfect competition D) Fiscal policy effectiveness

3. The Arrow-Debreu Model is primarily concerned with:

   A) Intertemporal equilibrium.   B) Market dynamics.

   C) General equilibrium.   D) Monetary policy.

4. In the context of money demand, the term "buffer stock" refers to:

   A) Reserves held by central banks.

   B) Individuals' holdings of money for precautionary purposes.

   C) The amount of money required to stabilize prices.

   D) The fluctuation in money supply over time

5. The Inventory Theoretic Approach to money demand, proposed by William Baumol, emphasizes:

   A) The role of speculation in determining money demand.

   B) The transactional motives for holding money.

   C) The importance of interest rates in money demand.

   D) The relationship between money supply and inflation.

6. Milton Friedman's Restatement of Quantity Theory of Money emphasizes the role of:

    A) Fiscal policy in stabilizing the economy. B) Interest rates in controlling inflation.

    C) Expectations in shaping money demand.

    D) Central bank independence in monetary policy.

7. According to the Money Multiplier Model, the money supply is determined by:

    A) The central bank's control over interest rates. B) The public's demand for money.

    C) The ratio of reserves to deposits in the banking system.

    D) Government spending and taxation policies.

8. The Fisher Effect suggests that an increase in the:

    A) Money supply leads to a decrease in the nominal interest rate.

    B) Money supply leads to an increase in the real interest rate.

    C) Real interest rate leads to a decrease in the money supply.

    D) Real interest rate leads to an increase in inflation.

9. The Behavioral Model of Money Supply emphasizes:

    A) Rational expectations and forward-looking behavior of economic agents.

    B) The role of government regulations in controlling money creation.

    C) Psychological factors influencing individuals' decisions regarding money holdings.

    D) The importance of technological advancements in the banking sector.

10. According to the Natural Rate Hypothesis, in the long run, the economy tends to:

    A) Experience inflationary spirals.   B) Achieve full employment without inflation.

    C) Encounter stagflation.   D) Exhibit high unemployment with deflation.

11. The Theory of Adaptive Expectations suggests that individuals form their expectations of future inflation based on:

    A) Past inflation rates.   B) Government announcements.

    C) Economic forecasts by experts.   D) Random fluctuations in prices.

12. The Sacrifice Ratio measures:

    A) The cost of reducing inflation.

    B) The level of unemployment corresponding to a given inflation rate.

    C) The trade-off between inflation and unemployment.

    D) The efficiency of monetary policy in stabilizing the economy.

13. The debate over rules versus discretion in macroeconomic policy refers to the choice between:

A) Fixed exchange rates and floating exchange rates.

B) Fiscal policy and monetary policy.

C) Implementing predetermined guidelines versus allowing policymakers flexibility.

D) Supply-side economics and demand-side economics.

14. Taylor's Rule is used to:

A) Predict fluctuations in stock prices.

B) Determine optimal levels of government spending.

C) Guide central banks in setting interest rates.

D) Regulate international trade agreements.

15. Inflation targeting involves:

A) Maintaining a fixed inflation rate.

B) Allowing inflation to fluctuate within a target range.

C) Controlling inflation through fiscal policy.

D) Targeting employment levels instead of inflation.

(15 x 0.2 = 3 weightage)

SECTION B
Answer any five questions. Each question carries 1 Weightage

16. Explain Say's Identity.

17. What are the key features of Walrasian system?

18. Describe Milton Friedman's restatement of the Quantity Theory of Money?

19. Explain the Fisher Effect and its relevance.

20. Describe the factors affecting the money multiplier.

21. Define the concept of the Sacrifice Ratio and discuss its significance.

22. Describe Expectation augmented Philipse Curve?

23. Discuss the key components of Taylor's Rule.

(5 x 1 = 5 weightage)

SECTION C
Answer any seven questions. Each question carries 2 Weightage

24. Explain in detail the Arrow-Debreu model and itspolicy implications?

25. Analyze the linkage between Say's Law and the Quantity Theory of Money.

26. Evaluate the Buffer Stock Notion introduced by David Laidler in understanding money demand

27. Analyse the Liquidity preference theory of James Tobin. What are its strengths?

28. Discuss the assumptions, strengths, and limitations of Money Multiplier Model of money supply determination.

29. Explain the implications of Behavioral Model of Money Supply. How far it is compatibile with traditional monetary theory.

30. Analyse the historical context and relevance of the theoretical underpinnings of the Phillips Curve.

31. Discuss Okun's Law and its implications in managing economic fluctuations.

32. Analyze the Theory of Adaptive Expectations and evaluate its relevance in explaining inflation dynamics in modern economies.

33. Evaluate the advantages and disadvantages of inflation targeting as a monetary policy strategy.

(7 x 2 = 14 weightage)

SECTION D
Answer any two questions. Each question carries 4 Weightage

34. Discuss the implications of Samuelson's overlapping generations model in understanding the effects of monetary policy over time.

35. Analyse the Inventory Theoretic Approach proposed by William Baumol. Evluate its strengths and weaknesses.

36. Examine the concept and measurement of high-powered money. Assess the significance of high-powered money in controlling inflation and stabilizing the economy.

37. Discuss the concept of DSGE modeling in macroeconomic analysis. Highlight its strengths and weaknesses compared to traditional macroeconomic models.

(2 x 4 = 8 weightage)

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Part A- (Multiple Choice Questions)

Answer all questions

Each question carries 1/5 weightage.

1. What is the primary rationale for government intervention in the market, particularly in cases of market failure?

   a) To maximize profits   b) To promote competition

   c) To achieve economic efficiency   d) To minimize government interference

2. Externalities occur when:

   a) Market transactions are efficient

   b) The government intervenes in private transactions

   c) The costs or benefits of an activity affect third parties

   d) Private goods become public goods

3. What is the primary goal of a Pigovian tax?

   a) To generate revenue for the government

   b) To correct market failures by internalizing externalities

   c) To subsidize the production of merit goods

   d) To encourage the consumption of public goods

4. Which of the following goods are typically associated with positive externalities and may be underprovided by the market?

   a) Private goods   b) Public goods

   c) Merit goods   d) Club goods

5. Club goods exhibit the characteristics of:

   a) Being excludable and rival in consumption

   b) Being non-excludable and non-rival in consumption

   c) Being excludable but non-rival in consumption

   d) Being non-excludable but rival in consumption

6. What is a key limitation of the traditional view of fiscal policy?

   a) It emphasizes government intervention too much

   b) It relies heavily on automatic stabilizers

   c) It overlooks the importance of monetary policy

   d) It doesn't consider the need for discretionary measures

7. Which of the following is an example of an automatic fiscal stabilizer?

   a) A one-time tax cut during a recession

   b) Unemployment benefits that automatically increase during economic downturns

   c) Discretionary spending on infrastructure projects

   d) A sudden increase in defence spending

8. What is a characteristic of Zero-Base Budgeting (ZBB)?

   a) Incremental budgeting based on previous year's expenditures

   b) Evaluating each budget item from scratch, regardless of previous budgets

   c) Focusing on long-term planning and strategic goals

   d) Emphasizing performance metrics in budget allocation

9. According to the Benefit principle of taxation, who should bear the tax burden?

   a) Those who use government services

   b) Those with higher incomes

   c) Those with the ability to pay

   d) Those who benefit the least from government services

10. According to Musgrave's modern concept of incidence of tax, who ultimately bears the burden of a tax?

    a) Consumers   b) Producers

    c) Government   d) Both consumers and producers share the burden equally

11. What is the primary rationale for implementing Fiscal Federalism?

    a) To concentrate financial power at the central government level

    b) To promote competition among states

    c) To achieve economic efficiency and accountability

    d) To minimize state government involvement in fiscal matters

12. What is a common problem in centre-state financial relations in India?

    a) Overlapping tax jurisdictions

    b) Excessive fiscal independence of states

    c) Unequal distribution of intergovernmental transfers

    d) Lack of constitutional provisions for fiscal matters

13. What is the key function of the latest finance commissions in India?

a) Conducting parliamentary elections

b) Advising on defence expenditure

c) Recommending the sharing of central taxes with state governments

d) Setting interest rates for monetary policy

14. What does the fiscal deficit of the central government represent?

a) The excess of total government revenue over total government expenditure

b) The excess of total government expenditure over total government revenue

c) The total government debt at a given point in time

d) The surplus generated from the sale of government assets

15. Total liabilities of the central government include:

a) Only external debt   b) Both external and internal debt

c) Only tax revenues   d) Only expenditure commitments

(15x1/5= 3 weightage)

Part B- Short Answer Type Questions
Answer any five questions
Each question carries a weightage of 1

16. Market failure

17. Club goods

18. Zero base budgeting

19. Shifting of tax

20. Taxable capacity

21. Finance Commission

22. Domar stability condition

23. GST Council   (5x1= 5 weightage)

Part C- Short Essay type questions
Answer any seven questions
Each question carries a weightage of 2.

24. Examine the distinctions between private, public, and merit goods.

25. Analyse the Tiebout hypothesis and its relevance to local government and public goods provision.

26. What is the traditional view of fiscal policy, and what are some of its limitations?

27. Distinguish between automatic fiscal stabilizers and discretionary fiscal stabilizers. Provide examples of each.

28. Define the cost-of-service principle, benefit principle, and ability-to-pay principle in taxation. Briefly explain how each principle influences tax policy decisions.

29. Explain the shifting and incidence of taxes. Briefly describe the concentration and diffusion theories, highlighting their perspectives on the burden of taxation.

30. Outline the constitutional assignment of functions and sources of revenue in the context of fiscal federalism in India.

31. Examine the role of the finance commissions in India. What are the major recommendations of the 15th Finance Commission?

32. Provide a brief overview of the design of GST and its impact on businesses and consumers.

33. Outline the trends and composition of revenue for the central government in India.

(7x2=14 weightage)

Part D- Essay-type questions
Answer any two questions
Each question carries a weightage of 4

34. Discuss the allocation, distribution, and stabilization functions of government in economic activity. Explain how these functions contribute to overall economic well-being and address potential market failures.

35. Analyse the interplay between monetary and fiscal policy in economic management. Explore how these two policy tools can complement or conflict with each other.

36. Examine the need for and mechanisms of intergovernmental transfers in the context of Fiscal Federalism. Discuss the various types of intergovernmental transfers and their role in addressing fiscal imbalances among different tiers of government.

37. Evaluate the sustainability of public debt, considering the Domar stability condition and its implications for fiscal policy.

(2x4=8 weightage)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester MA Economics Degree Examination, April 2024

MEC2C08 – Quantitative Methods for Economic Analysis – II

(2022 Admission onwards)

Time: 3 hours   Max. Weightage : 30

PART – A

Answer all questions.

(Each question carries weightage 1/5)

A: Multiple Choice

1. Normal distribution is

   a)Positively skewed and leptokurtic   b)Negatively skewed and mesokurtic

   c)Symmetric and mesokurtic   d)Positively skewed and platykurtic

2. For t distribution

   a)Mean always exists   b)Mean does not exist

   c)Mean exists for $n > 1$ d)Mean exists for $n > 2$

3. Statistic used for estimating a parameter is known as

   a)Estimate   b)Estimator   c)Sufficient statistic   d)Complete statistic

4. Probability of type II error is represented using

   a)α b)β c)$1 - \alpha$ d)$1 - \beta$

5. Numbers in R are generally treated as _____ precision real numbers.

   a)Single   b)Double   c)Triple   d)None of these

B: Fill in the blanks

6. Rectangular distribution is also known as _____

7. Mean of F distribution with 4 degrees of freedom is _____

8. If T_n converges to θ in probability then T_n is _____

9. The value which separates critical region and acceptance region is known as _____

10. The _____ function can be used in R to create vectors of objects by concatenating things together.

C: State True of False

11. Exponential distribution is a discrete frequency distribution.

12. Mean of a Chi-square distribution is $2n$.

13. If $V(T_1) > V(T_2)$ then T_1 is less efficient.

14. Paired t test is an independent sample t test

15. A vector in R is a homogeneous 1- dimensional data structure.

PART – B
Short answer questions
Answer any 5 questions. Each question carries weightage 1.

16. If $X \sim N(3, 2)$ find $P(|X| < 4)$.

17. Define Exponential random variable. Give its mean.

18. Define standard error. Give standard error of the sample mean of normal distribution.

19. Distinguish between a parameter and statistic.

20. Give the confidence interval for population proportion.

21. What is meant by p-value?

22. Distinguish between cbind and rbind functions in R.

23. Give the command for entering a matrix $A = \begin{bmatrix} 4 & 6 \\ 5 & 2 \end{bmatrix}$ in R.

PART – C
Short Essay Questions
Answer any 7 questions. Each question carries weightage 2

24. The time in minutes that Sunitha takes to check out at the local super market follows uniform distribution in the interval [5, 30]. Find her expected checkout time.

25. Define lognormal distribution. How is it related to normal distribution? Give its mean.

26. Define t and F statistics. Give any 2 applications of each.

27. A random sample of size 35 is drawn from a normal population with mean 15 and variance 2. Obtain the mean and standard deviation of the sample variance.

28. Obtain an unbiased estimator for the population mean based on a random sample from exponential distribution with parameter θ.

29. Obtain the confidence interval for the mean of a normal population whose sample mean is 10 and sample variance is 2.

30. Why do you use different methods for testing the same hypothesis when the samples are small and large?

31. A random sample of 16 units from a normal population gives $S^2 = 8$.

Is $H_0: \sigma^2 = 100$ acceptable when tested against $H_1: \sigma^2 > 100$ at 5% significance level.

32. A thousand individuals from a district were classified according to sex and colour – blindness to form the following table

	Male	Female
Normal	442	514
Colour-blind	38	6

Test the hypothesis that colour-blindness is independent of sex at 5% level of significance.

33. What are the different data structures in R? Briefly explain each of them.

PART – D
Essay Questions
Answer any 2 questions. Each question carries weightage 4.

34. A) Define normal variate. What are its main features?

B) If the probability function of X is $f(x) = K\,e^{-\frac{1}{50}(x^2-10x+25)}$, $-\infty < x < \infty$, find K, mean and standard deviation.

35. Show that, in sampling from a normal population, if σ^2 is known $\bar{X}$ is sufficient for μ; but if μ is known $s^2 = \frac{1}{n}\Sigma(X_i - \bar{X})^2$ is not sufficient for σ^2. Suggest a sufficient estimator for σ^2.

36. An experiment on pea breeding gave the following results in four seasons.

Seasons	I	II	III	IV
Frequencies	315	108	101	32

Theory says that the frequencies should be in the ratio of 9:3:3:1. Examine the correspondence between theory and experiment.

37. Construct the R programme for one way ANOVA