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1M1N24030 (Pages : 4) Reg. No:.....

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester MA Economics Degree Examination, November 2024

MEC1C01 – Micro Economics Theory and Applications I

(2022 Admission onwards)

Time: 3 hours Max. weightage : 30

PART A

Objective Type Questions

Answer all the questions (Weightage for each Question 1/5. Total Weightage -3)

1. What does the "Expected Value" of a gamble represent?
   A. The maximum possible outcome of the gamble
   B. The average or mean outcome of the gamble over a large number of trials
   C. The minimum possible outcome of the gamble
   D. The probability of winning the gamble
2. A fair gamble is defined as a gamble in which:
   A. The expected value is equal to zero
   B. The expected value is positive
   C. The utility of the gamble is always higher than that of a certain outcome
   D. The probability of winning is greater than losing
3. Which of the following best describes a "network externality"?
   A. The price of a good decreases as more people buy it
   B. The utility or value of a good increases as more people use or purchase it
   C. The cost of producing a good decreases as the market expands
   D. The demand for a product increases as its price increases
4. Which of the following is true about the linear demand curve?
   A. Price elasticity of demand remains constant
   B. The slope of the demand curve is constant
   C. Demand always increases as price increases
   D. All of these
5. Which of the following is a feature of the Nerlove model of demand?
   A. It assumes instant adjustment to price changes
   B. It uses a stock-adjustment model to capture the dynamic nature of demand adjustment
   C. It assumes consumers never change their habits
   D. It disregards past consumption habits

6. A CES (Constant Elasticity of Substitution) production function allows for:
   A. A fixed elasticity of substitution between inputs
   B. Perfect substitutability between inputs
   C. No substitution between inputs
   D. A variable elasticity of substitution between inputs
7. The learning curve suggests that:
   A. Costs increase as workers become more experienced
   B. As cumulative production increases, per-unit costs decrease due to learning and efficiency improvements
   C. Fixed costs rise as output expands
   D. Technological progress leads to higher input prices
8. The kinked demand curve model of Sweezy suggests that:
   A. Firms in oligopoly tend to match price increases by competitors
   B. Firms in oligopoly are likely to ignore price increases but match price cuts
   C. Firms compete solely on the basis of product differentiation
   D. Firms in oligopoly act as price takers
9. In a collusive oligopoly, firms:
   A. Set their prices and output independently
   B. Cooperate to maximize joint profits, often through cartels
   C. Are price takers
   D. Act as price leaders and followers
10. Price leadership occurs when:
   A. All firms in an industry agree on the same price
   B. One firm sets the price, and others follow
   C. Firms act independently in setting their prices
   D. Firms set output levels and ignore prices
11. Sylos-Labini's model of limit pricing assumes that:
   A. Firms collude to prevent market entry
   B. Firms set a price based on the cost structures of potential entrants
   C. Firms act as price takers in a perfectly competitive market
   D. Firms are monopolists in their market
12. Baumol's theory of sales revenue maximization suggests that firms:
   A. Focus only on maximizing profits
   B. Aim to maximize sales revenue, even at the cost of profit maximization
   C. Act as price takers in a competitive market
   D. Always collude to maximize joint profits

13. The Prisoner's Dilemma is a classic example of:
    A. A zero-sum game
    B. A non-cooperative game where both players have dominant strategies that lead to a suboptimal outcome
    C. A cooperative game where players always benefit from cooperating
    D. A repeated game with no Nash equilibrium
14. The Nash equilibrium is a situation where:
    A. Players have no incentive to change their strategies, as they are already optimizing given the strategies of others
    B. One player dominates the entire game
    C. Players cooperate to maximize joint profits
    D. All players use mixed strategies
15. A mixed strategy is:
    A. A strategy where a player chooses the same action every time
    B. A strategy in which a player assigns probabilities to multiple possible actions
    C. A strategy only used in cooperative games
    D. A dominant strategy

PART B

Short Answer Questions

Answer any 5 (Weightage for each Question 1. Total Weightage -5)

16. What is a fair gamble?
17. Define risk aversion?
18. What is risk neutrality?
19. What is the Veblen effect?
20. What is elasticity of substitution?
21. Explain a homogeneous production function?
22. What is the learning curve?
23. What is a zero-sum game?

PART C

Short Essay Questions

Answer any 7 (Weightage for each Question 2. Total Weightage -14)

24. Write a note on the state preference approach?
25. Discuss the St. Petersburg paradox and its implications.
26. Explain the concept of certainty equivalent.
27. Write a note on network externalities.

28. Explain the short-run and long-run production functions.
29. How does technological progress affect the production function?.
30. What are economies of scope, and how do they influence production decisions?
31. What is Chamberlin's model of monopolistic competition?
32. What is the difference between cooperative and non-cooperative games?
33. Explain the difference between pure and mixed strategies in game theory.

PART D Essay Questions

Answer any 2 (Weightage for each Question 4. Total Weightage -8)

34. Discuss the Expected Utility Hypothesis and its significance in decision-making under uncertainty.
35. Differentiate between CES and Cobb Douglas Production function.
36. How do the Cournot and Bertrand models differ in explaining firms' behaviour in duopolistic markets?
37. What is the significance of the kinked demand curve in Sweezy's model in explaining price rigidity?

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester MA Economics Degree Examination, November 2024

MEC1C02 – Macro Economics Theories and Policies - I

(2022 Admission onwards)

Time: 3 hours Max. weightage : 30

Part A (Multiple Choice Questions)

Answer all questions.

Each question carries 0.2 weightage

1. Which of the following expectations will not increase the MEC for a proposed capital addition?
   (a) Firms expect an increase in selling price due to increased demand
   (b) Firms expect a larger inflow of funds due to inflation
   (c) Firms expect production costs to increase
   (d) Firms expect a reduction in corporate income taxes
2. If the MPC is constant, the consumption function will be:
   (a) A curve convex to the horizontal axis
   (b) A straight line
   (c) A curve concave to the horizontal axis
   (d) None of the above
3. The accelerator model predicts that the changes in investment are determined by the changes in:
   (a) Inventory
   (b) Capital
   (c) Interest
   (d) Output
4. A vertical LM curve represents:
   (a) Interest elasticity of the demand for money
   (b) Interest inelasticity of the demand for money
   (c) Perfectly elastic demand for money
   (d) None of these
5. Which of the following are the equilibrium income and interest rate, respectively, given the LM and IS functions? LM: $Y = 75 + 10i$ and IS: $Y = 135 - 20i$
   (a) 90 and 2
   (b) 95 and 2
   (c) 100 and 3
   (d) 110 and 3

6. Under Keynesian unemployment, if money wages increase:
   (a) Both output and prices rise
   (b) Both output and prices fall
   (c) Output increases and price falls
   (d) Output falls and price increases
7. According to classical economists, unemployment at any time is temporary and is considered as:
   (a) Structural unemployment
   (b) Cyclical unemployment
   (c) Frictional unemployment
   (d) Disguised unemployment
8. The interaction between the multiplier and the accelerator may lead to:
   (a) Trade cycles
   (b) A reduction in export demand
   (c) Economic growth
   (d) None of the above
9. Real business cycle theory is associated with:
   (a) Mankiw and Romer
   (b) Hicks
   (c) Samuelson
   (d) Goodwin
10. Under supply-side economics:
   (a) There will be a reduction in tax rates
   (b) Interest rates will be reduced
   (c) Wage rates will be lowered
   (d) All the above
11. Which of the following economists is known for restating the quantity theory of money?
   (a) John Maynard Keynes
   (b) Milton Friedman
   (c) Irving Fisher
   (d) David Ricardo
12. According to New Classical economists, unemployment is caused by:
   (a) Real wage falling
   (b) Lack of effective demand
   (c) Rise in money wages
   (d) Market failure

13. The multiplier-accelerator interaction leads to:

(a) Trade cycles

(b) Constant growth

(c) Economic stability

(d) None of the above

14. Real business cycle theory emphasizes:

(a) Supply shocks

(b) Demand shocks

(c) Inflation control

(d) Policy inefficacy

15. The concept of rational expectations suggests that individuals:

(a) Always expect the worst

(b) Have inaccurate predictions

(c) Form expectations based on all available information

(d) Ignore information

(15 x 0.2 = 3 weightage)

Part B (Short Answer Questions)

Answer any five questions.

Each question carries 1 weightage

16. Define inventory investment.

17. Explain the concept of crowding out.

18. Describe the Pigou effect.

19. What is underemployment equilibrium?

20. Define economic depression in the context of the business cycle.

21. Explain intertemporal substitution of leisure.

22. What is menu cost?

(5 x 1 = 5 weightage)

Part C (Short Essay Questions)

Answer any seven questions.

Each question carries 2 weightage

23. Explain the key aspects of the life cycle hypothesis of consumption.

24. Discuss the implications of the accelerator theory on investment.

25. Why does the IS curve slope downward? Explain.

26. Describe how falling prices impact equilibrium income using the IS-LM model.

27. Explain labour market equilibrium in the classical model.

28. What are the factors that shift the labour demand curve?

29. Discuss the political business cycle theory.

30. Explain the Lucas critique and its implications for policy.

31. Describe the insider-outsider model in labor economics.

32. Summarize Clower and Leijonhufvud's reinterpretation of Keynes.

(7 x 2 = 14 weightage)

Part D (Long Essay Questions)

Answer any two questions.
Each question carries 4 weightage

33. In the neoclassical model of business fixed investment, under what conditions will firms find it profitable to add to their capital stock?
34. Using the IS-LM model, analyze the effects on interest rates, income, consumption, and investment under the following circumstances:
    (a) An increase in the money supply
    (b) An increase in government purchases
    (c) An increase in taxes
    (d) Equal increases in government purchases and taxes
35. Compare the classical and Keynesian theories of aggregate supply.Highlight their key differences.
36. Compare Monetarist and Keynesian perspectives on fiscal policy and its impact on economic stabilization.

(2 x 4 = 8 weightage)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester MA Economics Degree Examination, November 2024

MEC1C03 – Indian Economy, Problems and Policies

(2022 Admission onwards)

Time: 3 hours Max. weightage : 30

Part-A
Answer all questions
Each questions carries a weightage of 1/5

A. Multiple Choice

1. Which reform established the National Stock Exchange (NSE)?

   A) Securities and Exchange Board of India Act (1992)

   B) Banking Sector Reforms (1992)

   C) Insurance Sector Reforms (2000) D) Pension Sector Reforms (2004)

2. The correct term among the mentioned revolutions that properly corresponds to 'fertilizers' is

   A)Silver Revolution B) The grey revolution

   C)Golden Revolution C) Pink Revolution

3. What is the base year for calculating India's GDP?

   (A) 2001-05. (B) 2010-11. (C) 2011-12. (D) 2014-15.

4. The book "Capital in the twenty first century" was written by:

   (A) Thomas Picketty. (B) Jagadish Bhagavati.

   (C) Paul Krugman. (D) AK Sen

5. Which of the following reforms was NOT a part of India's economic reforms initiated in the 1990s?

   A) Liberalization of trade policies B) Nationalization of banks

   C) Deregulation of industrial sectors

   D) Introduction of foreign direct investment policies

6. What is a major criticism of the Kerala Model of Development?

   A) Overemphasis on economic growth B) Neglect of social welfare

   C) Insufficient investment in infrastructure D) Dependence on remittance

7. Which committee's methodology for estimating poverty focused on multi-dimensional approach?

   A) Lakdawala Committee B) Tendulkar Committee

   C) Rangarajan Committee D) None

8. What is the main objective of the Targeted Public Distribution System (TPDS)?

A) To provide subsidized foodgrains to 100% of the population

B) To reduce food subsidies

C) To target subsidies to vulnerable populations D) To increase food production

9. What is the primary source of remittances for Kerala?

A) Gulf countries B) United States C) Europe D) Southeast Asia

10. Which sector constitute the maximum share in National Income of India?

(A) Primary. (B) Secondary.(C) Tertiary (D) All of the above have equal share.

11. Which issue plagues poverty estimation in India?

A) Underestimation B) Overestimation C) Data quality D) All

12. Which of the following is a key factor contributing to Kerala's high life expectancy?

A) Access to clean water B) Improved healthcare services

C) High per capita income D) All of the above

13. What has been the primary driver of India's economic growth since the 1990s?

A) Agriculture B) Industry

C) Services D) Manufacturing

14. Methanol Economy Programme has been recently in the news. It is launched by which of the following bodies or Ministries?

A) Ministry of New and Renewable Energy B) UNFCCC

C) Ministry of Agriculture and Farmers Welfare D) NITI Aayog

15. The 'Baba Kalyani Committee'is related to?

A. Long Term Food Policy B. Banking Supervision

C. Small Scale Industries Reforms D. Special Economic Zones Polic

Part B
Answer any 5 questions
Each questions carries weightage of 1

16. Discuss the major objectives of the economic reforms initiated in India in 1991?
17. Define agricultural stagnation and explain its causes in India.
18. Discuss the achievements of decentralization in Kerala.
19. Explain the concept of Gini Coefficient and its significance in measuring income inequality.
20. What is meant by "service-led growth" in the context of the Indian economy?
21. Discuss the causes of fiscal crisis in Kerala.
22. Identify the major agricultural crops grown in India and describe their production trends.
23. Identify the major challenges facing India's industrial development.

Part C
Answer any 7 questions
Each question carries a weightage of 2

24. Compare and contrast the patterns of economic growth and structural changes during the pre-reform and post-reform periods in India.
25. What are the challenges and opportunities for Indian agriculture in the context of global trade liberalization?
26. Evaluate the role of foreign direct investment (FDI) in India's economic growth.
27. Analyze the factors contributing to agricultural stagnation in Kerala and suggest strategies for revival.
28. Discuss the evaluation of PDS and TPDS.
29. What is the primary goal of the Minimum Support Price (MSP) policy in India, and how effective has it been in achieving its objectives.
30. Discuss the strategies to address regional disparities in India's economic growth.
31. Examine the trends and reasons for unemployment in India.
32. Examine the background of economic reforms.
33. Discuss the composition of India's Exports and imports.

Part D
Answer any 2 questions
Each question carries a weightage of 4

34. Analyze India's trade policy and its impact on the country's balance of payments (BOP) since 1991.
35. Analyse the causes and consequences of income and wealth inequality in India. Evaluate the effectiveness of policies aimed at reducing inequality.
36. Critically evaluate the Kerala Model of Development, focusing on its achievements, limitations, and sustainability.
37. Evaluate the impact of economic reforms on India's poverty reduction efforts.

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FAROOK COLLEGE (AUTONOMOUS). KOZHIKODE

First Semester MA Economics Degree Examination, November 2024

MEC1C04 – Quantitative Methods for Economic Analysis – I

(2022 Admission onwards)

Time: 3 hours Max. weightage : 30

PART –A

Answer all questions

(Each question carries weightage 1/5)

1. The limit of the function $f(x)=\frac{x^2-5x+4}{x-1}$ as x approaches 1

   (a) 0 (b) -1 (c) -3 (d) Infinity

2. Derivative of $f(x) = e^{3x}$ at x=0 is

   (a) 3 (b) 1 (c) e (d) 0

3. The definite integral $\int f(x)\,dx$ represents

   (a) The average value of the function f(x) over the interval [a, b]

   (b) The slope of the function f(x) at a specific point

   (c) The area under the curve of the function f(x) between x=a and x=b

   (d) The maximum value of the function f(x) over the interval [a, b]

4. The difference equation $y_{t+2} - 2y_{t+1} + y_t = 0$ is of

   (a) First order (b) Second order (c) Third order (d) Zero order

5. The slope of the equation 2x-4y+4 = is :

   (a) 2/3 (b) 3/2 (c) ½ (d) 2

6. In how many ways can the letters of the word "APPLE" be arranged?

   (a) 60 (b) 120 (c) 240 (d) 40

7. The probability of the entire sample space is :

   (a) Zero (b) Lies between 0 and 1 (c) Either 0 or 1 (d) 1

8. Two coins are tossed. What is the probability of getting at least one head

   (a) ¼ (b) ½ (c) ¾ (d) 1

9. For a continuous random variable, P(X=x) is

   (a) 0 (b) 0.5 (c) 1 (d) Not defined

10. In a binomial distribution n=4 and p=0.5. What is the variance ?

    (a) 2 (b) 1 (c) 3 (d) 4

11. For a Poisson distribution, mean is ..... variance

    (a) Less than (b) Equal to (c) Greater than (d) No relationship with

12. The primary R system is available from the .....

(a) CRAN (b) CRWO (c) GNU (d) CRDO

13. Which package contains most fundamental functions to run R?

(a) root (b) child (c) base (d) parent

14. Which of the following is used for Statistical analysis in R language?

(a) RStudio (b) Studio (c) Heck (d) KStudio

15. ..... function is used to watch for all available packages in library.

(a) lib() (b) fun.lib() (c) libr() (d) library()

PART –B
Short Answer Questions
(Answer any 5 questions. Each question carries weightage 1)

16. Define continuity of a function. Check the continuity of $f(x)=\frac{1}{x-2}$ at $x=2$

17. Find the marginal and average cost function of the total cost function $TC = 35+5Q-2Q^2+2Q^3$ at $Q=3$.

18. Solve the differential equation: $\frac{dy}{dx} = \frac{y}{1+x}$.

19. From an urn containing 12 balls of the same size of which 6 are red, 4 are blue and 2 are white. Three balls are drawn at random. What is the probability that the balls are of different colors.

20. State addition theorem for two and three independent events

21. Define Binomial distribution. Write its mean and variance.

22. What are the advantages of R over other statistical softwares

23. Write any four built in functions in R and their use.

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

24. A company has examined the cost structure and has determined that $C= 100+0.015x^2$ and $R= 3x$, where C is the total cost , R is the total revenue and x is the number of units produced. Find the production rate x that will maximize profits of the company. Find out that profit.

25. Find $\frac{dy}{dx}$ where $3x^4-7y^5-86=0$

26. Define consumers surplus and producers surplus. The demand function for a commodity is $p=80-4x-x^2$. Find the consumers surplus when $p=20$.

27. Evaluate $\int x^2 \log x \, dx$

28. Find the general and particular solution for the differential equation $\frac{dy}{dx}=6x+2$, given that $x=3$ and $y=0$.

29. Define Classical definition of probability. Two unbiased dice are thrown. Find the probability that the sum is five?

30. Two person A and B attempt independently to solve a puzzle. The probability that A will solve is 3/5 and the probability that B will solve is 1/3. Find the probability that the puzzle will be solved by (a) At least one of them (b) Both of them.

31. Define distribution function of a random variable and write down any three properties.

32. X is a random variable such that $f(x)=c\,x$; for $0<x<1$ and $f(x)=0$ otherwise. Find c.Also find its mean and variance.

33. Let $X \sim B(10, 0.2)$.Write R commands for computing $P(X=x)$ for $x=1, 2, \ldots, n$.

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

34. (a) Obtain the optimum value of the function $z=x^2+3y^2$ subject to the constrain $2x+5y=10$, using the Lagrange multiplier method.

(b) If $z=\frac{x^2y^2}{x+y}$, show that $x\frac{\partial z}{\partial x} + y\frac{\partial z}{\partial y} = 3z$

35. (a) Explain Cobb web model

(b) The demand and supply functions for a good at time t are given as $Q_d=125-2P_t$ and $Q_s=-50+1.5\,P_{t-1}$

(i) State the equilibrium condition, hence deduce a difference equation in P.

(ii) Solve the difference equation to find the equilibrium price and quantity.

36. (a) State Baye's theorem

(b)Out of 600 car parts produced, it is known that 350 are produced in one plant, 150 parts produced in a second plant and 100 parts in a third plant. Also, it is known that the probabilities are 0.15, 0.12 and 0.25 that the parts will be defective if they are produced in first, second and third plants respectively. What is the probability that a randomly picked parts from this batch is not defective.

37. (a) A random variable X follows a probability distribution given below:

X	:	0	1	2	3
P(x)	:	$\frac{k}{2}$	$\frac{k}{3}$	$\frac{k+1}{3}$	$\frac{2k-1}{6}$

Find the value of k. Also find the mean of the random variable.

(b) A systematic sample of 100 pages was taken from the Oxford Dictionary and the observed frequency distribution of foreign words per page was found to be as follows:

No. of foreign words per page :	0	1	2	3	4	5
Frequency :	42	34	12	7	4	1

Calculate the expected frequencies using Poisson distribution.