MASTER OF ARTS

(ECONOMICS)

ASSIGNMENTS 2022-23

First Year Courses

(For July 2022 and January 2023 Sessions)

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THE PEOPLE'S
UNIVERSITY

SCHOOL OF SOCIAL SCIENCES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI-110068

Master of Arts (Economics)

(TMA)

(2022-23)

Dear Student,

As explained in the programme guide for MEC, assignments carry 30 per cent weightage in a course and it is mandatory that you have to secure at least 40 per cent marks in assignments to complete a course successfully. Note that you have to submit the assignments before appearing in Term End Examination of a course.

Before attempting the assignments, please read the instructions provided in the programme guide sent to you separately. In this booklet, we have included the assignments for all the courses pertaining to the First year. In each course there is a Tutor Marked Assignment (TMA). You have to do the assignment for those courses for which you have registered. Do remember that you have to prepare and submit the assignments separately for each course. Make sure that you submit the assignments well in time for those courses in which you plan to appear in the Term End Examination.

It is important that you write the answers to all the TMA questions in your own words. Your answers should be within the approximate range of the word-limit set for a particular section.

As mentioned in the Programme Guide, you need to submit all the assignments within the stipulated time for being eligible to appear in the term-end examination to the **Coordinator of your study centre**. This assignment is valid for two admission cycles (**July 2022** and **January 2023**).

The assignments should be submitted to the Coordinator of your Study Centre:
1. **By 30th April, 2023,** for the academic session **July 2022**
2. **By 31st October, 2023,** for the academic session **January 2023**

You must obtain a receipt from the Study Centre for the assignments submitted and retain it. If possible, keep a xerox copy of the assignments with you.

The Study Centre will have to return the assignments to you after they are evaluated. Please insist on this. The Study Centre has to send the marks to the Student Evaluation Division at IGNOU, New Delhi.

We expect you to answer each question as per guidelines for each category as mentioned in the assignment. You will find it useful to keep the following points in mind:

1) **Planning:** Read the assignments carefully, go through the Units on which they are based. Make some points regarding each question and then rearrange them in a logical order.

2) **Organisation:** Be a little selective and analytic before drawing up a rough outline of your answer. Give adequate attention to your introduction and conclusion.

   Make sure that your answer:
   a) is logical and coherent;
   b) has clear connections between sentences and paragraphs, and
   c) is written correctly giving adequate consideration to your expression, style and presentation.

3) **Presentation:** Once you are satisfied with your answer, you can write down the final version for submission, writing each answer neatly and underlining the points you wish to emphasize. Make sure that the answer is within the stipulated word limit.

MEC-001/101: MICRO ECONOMIC ANALYSIS
Tutor Marked Assignment (TMA)

Note: Answer all the questions.

SECTION A

Answer the following questions in about 700 words each. The word limits do not apply in case of numerical questions. Each question carries 20 marks.

$$2 \times 20 = 40$$

1. a) Consider a pure-exchange economy of two individuals (A and B) and two goods (X and Y) Individual A is endowed with 5 units of good X and 3 units of good Y, while individual B with 3 and 4 units of goods X and Y respectively. Assuming utility functions of individuals A and B to be $U_A = X_A Y_A^2$ and $U_B = X_B^2 Y_B$ where X_i and Y_i for i= {A, B} represent individual i's consumption of good X and Y respectively, what will be the set of Pareto optimal allocation in this economy?

    b) Determine the conditions that need to be fulfilled by an allocation to be termed as Pareto efficient allocation.

2. Consider a Cobb-Douglas utility function

    $$U (X, Y) = X^\alpha Y^{(1-\alpha)},$$

    Where X and y are the two goods that a consumer consumes at per unit prices of P_x and P_y respectively. Assuming the income of the consumer to be ₹M, determine:

    a. Marshallian demand function for goods X and Y.

    b. Indirect utility function for such a consumer.

    c. The maximum utility attained by the consumer where $\alpha = 1/2$, $P_x = ₹ 2$, $P_y = ₹ 8$ and M= ₹ 4000.

    d. Derive Roy's identity.

SECTION B

Answer the following questions in about 400 words each. Each question carries 12 marks.

$$5 \quad X \ 12 = 60$$

3. a.) What is excess capacity and how is it related to the model of monopolistic competition?

    b) Demand function and supply function are given as $P = 25 - X^2$ and $P = 2X + 1$ respectively, find out producer surplus and consumer surplus.

4. a.) Define games of complete and incomplete information

   b.) From the following pay-off matrix, where the payoffs (the negative values) are the years of possible imprisonment for individuals A and B, determine:

   (i) The optimal strategy for each individual.

   (ii) Do individuals A and B face a prisoner's dilemma?

		Individual B	
		Confess	Don't Confess
Individual A	Confess	(-5, -5)	(-1, -10)
	Don't Confess	(-10, -1)	(-2, -2)

5. a.) Differentiate between the Cournot and the Bertrand model of Oligopoly.

   b.) Consider an industry with two firms 1 and 2, each producing output Q_1 and Q_2 respectively and facing the industry demand given by P=140-Q, where P is the market price and Q represents the total industry output, that is Q= Q_1 + Q_2. Assume that each faces a marginal cost of ₹ 20 per unit with no fixed costs. Solve for the Cournot equilibrium in such an industry.

6. a.) Given the Von Neumann-Morgenstern utility function of an individual, U (W) =W ^{½}, where W stands for amount of money. Comment upon attitude towards risk of such an individual with the help of a diagram.

   b) Now suppose this individual possesses a building worth ₹1600. If the building catches fire, its value falls to ₹ 400. Let the probability of building catching fire be ¼. On the basis of the given information, find out whether the individual would be willing to pay a risk premium of ₹ 76 to the insurance company in order to eliminate the risk associated with the factory building.

7. Write short notes on following:
   a) Moral Hazard
   b) Homogeneous and Homothetic production functions
   c) Arrow prat measure of risk averseness
   d) Bergson-Samuelson Social welfare function

MEC-002: MACROECONOMIC ANALYSIS
Tutor Marked Assignment (TMA)

Note: Answer all the questions.

SECTION A

Answer the following questions in about 700 words each. The word limits do not apply in case of numerical questions. Each question carries 20 marks.

1.   Explain the concept of steady state growth in the Solow model with appropriate diagram. Show that the golden rule of Phelps is not a steady state.

2.   Differentiate between adaptive expectations and rational expectations. Explain why the shape of the Phillips curve changes when we introduce expectations in our analysis.

SECTION B

Answer the following questions in about 400 words each. Each question carries 12 marks.

3.   Policy rules are better than discretionary policies. Justify the above statement in light of new classical macroeconomics.

4.   Explain in brief the salient features of political business cycle theory.

5.   Bring out the factors that lead to rigidity in wages and prices.

6.   Explain with appropriate diagrams why an economy with fixed exchange rate cannot pursue an independent monetary policy.

7.   Write short notes on the following.
     i)   Inter-temporal utility maximization
     ii)   Real business cycle theory

MEC-003: QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS
Tutor Marked Assignment (TMA)
(For the Students who have taken admission up to January, 2017 Academic Cycle)

Note: Answer all the questions.

SECTIONA

Answer the following questions in about 700 words each. The word limits do not apply in case of numerical questions. Each question carries 20 marks.

1. The derivatives have wide application in economics. Explain the following through derivatives: (4 X 5 = 20)

    (i)   Average Revenue and Marginal Revenue
    (ii) Average Cost and Marginal Cost
    (iii) Elasticity of demand
    (iv) Constant Elasticity Demand Curve

2. (i) If the second derivative is zero at a point, the function may have a maximum, a minimum or a point of inflexion. In the light of this statement, explain a maximum, a minimum and point of inflexion.

    (15)

    (ii) Find the point of inflexion for the following functions (5)
        (a) $f(x) = 3x^3 + 4$
        (b) $f(x) = x^3 + x^2 + x + 1$

SECTION B

Answer the following questions in about 400 words each. Each question carries 12 marks.

3. Explain any two economic applications of Definite Integral. Use examples to illustrate the applications. (6 + 6 = 12)

4. Under perfect competition, there is a firm producing two products. Quantity of first product is q_1 and quantity of second product is q_2. Prices of both commodities must be taken as exogenous. The price of first product is given by $p_1 = 5$ and the price of second product is given by $p_2 = 3$. The firm's cost function is assumed to be $C = 2q_1^2 + 2q_2^2 + q_1q_2$. Find out the following: (6 X 2 = 12)
    a) firm's revenue function
    b) firm's marginal cost function for first product
    c) firm's marginal cost function for second product

d) firm's profit function
e) the value of q_1 and q_2 that maximise the firm's profits
f) Value of Hessian matrix

5. (i) What is a partial derivative? Find the partial derivative of: $f(x_1, x_2) = 4x_1 + 5x_1x_2 + 2x_2$
(3 X 4 = 12)

(ii) What is a cross partial derivative? Find the cross partial derivative of: $f(x_1, x_2) = 4x^3 + x_2^4 + 3x_1^3x_2^4 + 5x_1 x_2$

(iii) What is a total differential? Find out the total differential of: $f(x_1, x_2) = 10x_1 + x_2^4 + 2bx_1x_2 + 5x_2$

6. What do you understand by constrained optimisation? Let the utility function be $U(X, Y) = X^2 + Y$. Price of commodity X is $P_X = 2$ and price of commodity Y is $P_y = 1$. The incomeis M = 200. Find out the equilibrium quantities of X and Y, given the constraint $M = P_X X + P_y Y$. (5 + 7 = 12)

7. Write short notes on the following: (3 X 4 = 12)
(i) Algebraic function and Non-Algebraic function
(ii) Right-hand limit and left-hand limit
(iii) Probability distribution function

MEC-103: QUANTITATIVE METHODS
Tutor Marked Assignment (TMA)

Note: Answer all the questions.

SECTION A

Answer the following questions in about 700 words each. The word limits do not apply in case of numerical questions. Each question carries 20 marks.

1. (i) "Analysis of economic relationships often requires inclusion of a large number of interrelated variables into the model. Linear algebra provides tools of solving simultaneous equations with the aid of matrices and determinants means for their concise presentation and solution mechanism". In the light of this statement, explain the concept of matrix and determinants. (12)

   (ii) Discuss the properties of determinants. Use examples to elaborate your response. (8)

2. We can derive some fundamental distributions with the help of Normal distribution. Enlist these fundamental distributions and explain each one of them in detail. (20)

SECTION B

Answer the following questions in about 400 words each. Each question carries 12 marks.

3. Under the simple regression analysis there are different methods of estimation. One of them is the Ordinary Least Square (OLS) method of estimation. Explain this method in detail. (12)

4. A good estimator should satisfy certain criteria. Discuss these criteria with illustration. (12)

5. (i) Enlist the properties of a binomial distribution. Find the probability of getting 8 heads and 5 tails in 13 tosses of an unbiased coin. (4)

   (ii) In a steel factory, on an average, there are 6 defects per 10 square feet of steel sheet produced. If we assume a poisson distribution, what is the probability that and 18 square feet of steel sheet will have at least 7 defects? (4)

   (iii) The height distribution of a group of 10,000 men is normal with mean height 63.5" and standard deviation 3.5. Find the number of men whose height is (a) less than 54.5" and (b) more than 74.5". (4)

6. Explain the concept of indefinite integral with the help of examples. Discuss any two economic applications of indefinite integral. (6 + 6 = 12)

7. Write short notes on the following: (3 X 4 = 12)

    (i)   Types of Sampling

    (ii)   Critical values

    (iii)   Probability Density Function

    (iv)   Cramer's rule

MEC-004: ECONOMICS OF GROWTH AND DEVELOPMENT
Tutor Marked Assignment (TMA)

Note: Answer all the questions.

SECTION A

Answer the following questions in about 700 words each. Each question carries 20 marks.

1. Critically examine the basic formulations of the Harrod-Domar model of economicgrowth. How does the Harrod model explain the occurrence of trade cycles?

2. Discuss the concept of Golden Age Equilibrium in Joan Robinson's model. What are itsmain criticisms?

SECTION B

Answer the following questions in about 400 words each. Each question carries 12 marks.

3. Distinguish between economic growth and development. Briefly mention the mainbenefits that economic growth confers upon society.

4. Explain the concept and implications of globalisation. Also discuss its advantages and shortcomings.

5. Critically evaluate the theory of critical minimum effort. Also bring out its limitations.

6. Explain the meaning of planning as an instrument of resource allocation. Why is there aneed for planning in the development process?

7. Compare and contrast the Uzawa two-sector growth model with the Feldman model.

MEC-105: INDIAN ECONOMIC POLICY
Tutor Marked Assignment (TMA)
(For the Students who have taken admission up to January, 2021 Academic Cycle)

Note: Answer all the questions.

SECTION A

Answer the following questions in about 700 words each. Each question carries 20 marks.

1. "The sequence of growth process in India is different from what other countries faced during the transition from developing to a developed nation." Examine this statement and give an account for the causes of rapid growth of the tertiary sector in India.

2. How are the inequalities of income measured in an economy? Examine the policy implications of income inequalities for wide spread poverty in India. Do you think that social protection can play important role in this regard?

SECTION B

Answer the following questions in about 400 words each. Each question carries 12 marks.

3. Critically evaluate the impact of economic reforms on the external sector.

4. Discuss the nature of crises in Indian agriculture. Which steps would you like to suggest to meet these crises?

5. Critically evaluate the various steps taken by Government of India towards removal of regional disparities.

6. Examine the role and significance of well developed money market in the process of economic growth of a country.

7. Go through the website http://info.worldbankorg/governance/wgi of worldwide governance indicators Project and study the aggregate indicators for India. How has India fared in different dimensions of governance?

MEC-205: INDIAN ECONOMIC POLICY
Tutor Marked Assignment (TMA)

Note: Answer all the questions.

SECTION-A
Answer the following questions in about 700 words each. Each question carries 20 marks.

1. "India has the advantage of harnessing the benefits of demographic dividend but this is neither obvious nor guaranteed" Explain.

2. What do you mean by fiscal imbalance? What are the measures of fiscal imbalance? How far the FRBMA has been effective to correct fiscal imbalances?

SECTION B

Answer the following questions in about 400 words each. Each question carries 12 marks.

3. Discuss the challenges involved in meeting the stated aim of doubling farmer's income. Briefly discuss the role of non-agricultural activities in this regard.

4. Compare and contrast the positive and negative effects of liberalization on the Indian Industrial sector during post 1991 reforms.

5. State the various dimensions of deterioration in the quality of employment in India. Also examine the policy implications of slowdown in women' workforce participation rate.

6. What is the distinction between social security and social protection? Why social security has become the need of the hour?

7. 'The quality of life in India is far from satisfactory' – Comment.