

MEC

**MASTER OF ARTS
(ECONOMICS)**

**ASSIGNMENTS 2017-18
First Year Courses
(For July 2017 and January 2018 Sessions)**



**School of Social Sciences
Indira Gandhi National Open University
Maidan Garhi, New Delhi-110 068**

Master of Arts (Economics)
(TMA)
(2017-18)

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 second 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.

Submission

For **July 2017** session, you need to submit the assignments by **March 31, 2018**, and for **January 2018** session by **September 30, 2018** for being eligible to appear in the term-end examination. Assignments should be submitted to the **Coordinator of your Study Centre**. Obtain a receipt from the Study Centre towards submission.

MEC-001: MICRO ECONOMIC THEORY
(Assignment)

Course Code: MEC-001
Asst. Code: MEC-001/TMA/2017-18
Total Marks: 100

Section A

Answer all the questions from this section.

2×20=40

1. Discuss the basic difference in approach adopted by Pigou and Pareto to deal with problems of welfare economics.
2. Consider an industry with three firms each having marginal costs equal to zero. The inverse demand curve facing this industry is:

$$P(q_1, q_2, q_3) = 60 - (q_1 + q_2 + q_3).$$

- (a) If each firm behaves as a cournot competitor, what is firm 1's best response function?
- (b) Calculate cournot equilibrium of this problem.
- (c) Firms 2 and 3 decide to merge and form a single firm (MC is still zero). Calculate the new industry equilibrium and comment on combined profits from firms 2 and 3 considering pre and post merger profits.

Section B

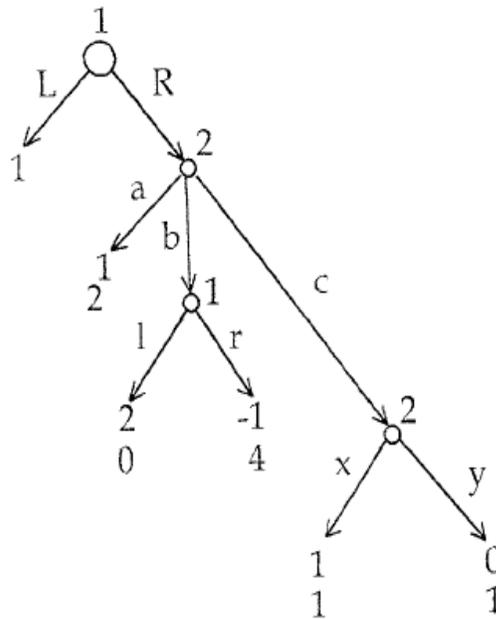
Answer all the questions from this section.

5×12=60

3. Suppose Ashok's utility function is $u = \left(\frac{Y}{1000}\right)^{\frac{1}{2}}$. His initial income when healthy is 36,000. However, there is a 50% chance that she will face financial loss on being taken ill and the income is likely to reduce by 20,000.

- (a) Find the expected value of his income
- (b) What expected utility he will have given the possible state of her health?
- (c) What is the risk premium he will be willing to pay to cover the risk of sickness?

4. Consider the following game given in extensive form:



- (i) Use backwards induction to compute equilibrium of the game.
- (ii) Write this game in normal form.
- (iii) How would you differentiate a static game from that of a dynamic game?
- (iv) Suppose the following game is played for an infinite number of periods. If the players are discounting the future at the rates of δ_A and δ_B respectively, find the conditions under which they sustain the outcome (2, 2) in every period.

Player B

		Low	High
A	Low	(1,1)	(4,0)
	High	(0,4)	(2,2)

5. Derive the indirect utility function from the given direct utility function $u = a \log x_1 + x_2$. Use Roy's identity to construct demand functions for the two goods x_1 and x_2 . Are these same as demand functions derived from the direct utility function?

6. Consider a world with two agents, A and B. there are two goods 1 and 2. The utility functions of A and B are given as $U_A = X_{A1} X_{A2}$ and $U_B = X_{B1} X_{B2}$. Their initial endowments are $W_A = (1,2)$ and $W_B = (2,1)$
 - (a) Draw the Edgewroth Box for the agents considering their initial endowments and commodity consumptions.
 - (b) Find the contract curve through your Edgewroth Box.
 - (c) Find the demand functions of A and B for prices P_1 and P_2 and incomes m_A of A and m_B of B.
 - (d) Find the competitive equilibrium price P^* and equilibrium allocation $(X_{A1}^*, X_{A2}^*, X_{B1}^*, X_{B2}^*)$ of this economy.

7. Write short notes on the following:
 - (a) Hotelling's lemma
 - (b) First welfare theorem
 - (c) Public goods
 - (d) VNM utility function

MEC-002: MACROECONOMIC ANALYSIS

Assignment

Course Code: MEC-002

Assignment Code: MEC-002/AST/2017-18

Maximum Marks: 100

Note: Answer all the questions. While questions in Section A carry 20 marks each, those in Section B carry 12 marks each.

Section A

1. Bring out the salient features of Ramsey model for decentralized households (your answer should include the assumptions, important equations, phase diagram and its interpretation). In what respect is it different from the Solow model?
2. In an open economy with fixed exchange rate, the government does not have autonomy in monetary policy. Do you agree with this statement? Justify your answer.

Section B

3. Explain how inflation unemployment trade off is not possible in the long run.
4. Critically evaluate the endogenous growth theory.
5. Specify, in detail, the various components that put together, generate business cycle according to Michal Kalecki.
6. Explain why prices and wages may not be flexible in an economy.
7. Write short notes on the following.
 - a) Lucas Critique
 - b) Absolute and Conditional Convergence

MEC-003: QUANTITATIVE METHODS
(Assignment)

Course Code: MEC-003
Asst. Code: MEC-003/TMA/2017-18
Total Marks: 100

Section A

Answer all the questions from this section.

2×20=40

1. a) What is a first order linear differential equation? Write the steps to obtain the solution to homogenous differential equation.
b) Given the rate of investment is $I(t) = 2t^{1/3}$, where 't' is time. Suppose the initial capital stock, K_0 is 25.

Find the amount of capital accumulation during the time intervals [0, 1] and [1, 3].

2. a) What is the normal probability distribution function? State its properties.
b) Write down the distribution functions of the Binomial distribution and Poisson distribution. When is a Poisson distribution an approximation of Binomial distribution? Obtain the mean and variance of the Binomial and Poisson distribution.

Section B

Answer all the questions from this section.

5×12=60

3. a) What are the relationship between confidence interval and hypothesis testing? Distinguish between Type I and Type II error and explain what are meant by the power of a test.
b) Describe the process of testing hypotheses about population proportion of a given attribute.
4. A monopolist's demand curve is given by $p = 100 - 2q$:
 - a) Find his marginal revenue function.
 - b) What is the relationship between the slopes of the average and marginal revenue curves?
 - c) At what price is marginal revenue zero?

5. Find the extreme value (s) of $z = 2x_1^2 - x_1x_2 + 4x_2^2 + x_1x_3 + x_3^2 + 2$. and using the Hessian matrix check whether the extreme value (s) is / are maximum or minimum.

6. Solve the following using simplex method of Linear programming Model in x_1 and x_2 .
 Maximize of $z = 45x_1 + 55x_2$

Sub to of $6x_1 + 4x_2 \leq 120$

$$3x_1 + 10x_2 \leq 180$$

$$x_1 \geq 0, x_2 \geq 0$$

7. a) Given the values of x and y

X	1	2	3	4	5
Y	3	7	5	1	14

Regress x on y

b) Given the values of x and y

X	25	25	30	30	16
y	2	3	5	1	8

Regress y on x .

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

Course Code: MEC-004
Asst. Code: MEC-004/AST/2017-2018
Total Marks: 100

Note: Answer all the questions. While questions in Section A carry 20 marks each (to be answered in about 500 words each) those in Section B carry 12 marks each (to be answered in about 300 words each). In the case of numerical questions word limits do not apply.

SECTION-A

1. Critically examine the basic formulations of the Harrod-Domar model of economic growth. 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 its main criticisms.

SECTION-B

3. Distinguish between economic growth and development. Briefly mention the main benefits 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 a need for planning in the development process?
7. Compare and contrast the Uzawa two-sector growth model with the Feldman model.

MEC-005/105: INDIAN ECONOMIC POLICY
Assignment (TMA)

Course Code: MEC-005/105
Assignment Code: MEC-005/105/AST/2017-18
Maximum Marks: 100

Note: Answer all the questions. While questions in Section A carry 20 marks each (to be answered in about 700 words each) those in Section B carry 12 marks each (to be answered in about 500 words each).

Section-A

1. Distinguish between 'economic growth' and economic development. What policy initiatives would you suggest to make India emerge as the fastest growing emerging economy in the world?
2. "It is necessary to take steps to move towards good governance to ensure sustainable human development". Comment.

Section-B

3. What is demonetization? Discuss usefulness of demonetization as an instrument to check underground economy.
4. Discuss the transmission mechanism and lags in Monetary Policy framework.
5. Critically examine the major institutional obstacles coming in the way of improving the conditions of Indian agriculture.
6. Do you think that Planning in India has been successful? What is significant difference between role and responsibilities of erstwhile Planning Commission and NITI Ayoga?
7. What do you mean by inequality? Examine the policy implications of wide spread poverty and inequality in the Indian economy.