

# Entrance Guide 2023-24

## Master of Arts in Economics

<https://azimpremjiuniversity.edu.in/programmes/ma-in-economics>

Students applying for the MA in Economics will need to pass an entrance test. The entrance test will consist of 35 multiple-choice questions and three descriptive questions. This Entrance Guide is prepared to help applicants understand our entrance test better so that they can prepare for the test accordingly. This guide is divided into three parts. First, the structure of the MA Economics Entrance test itself. Second, the topics and relevant resources to prepare for our exam. Third, some sample questions for applicants to practice. Good luck! We wish you all the very best as you prepare for our entrance exam.

### Section 1: Structure of the Entrance Test

The multiple-choice questions will test definitional and conceptual foundational economics knowledge from microeconomics, macroeconomics and quantitative reasoning. In addition there will be 5 multiple-choice analytical questions testing english language comprehension, logical reasoning and critical thinking skills. The three descriptive questions will test the applicants on (i) Economic reasoning, (ii) Applying economics in the real-world and (iii) Suitability for Azim Premji University. The duration of the test is 3 hours.

MA Economics			
Section Name	Question Type	No. of Questions	Total Time
Microeconomics	Multiple choice question	10	3 hours
Macroeconomics	Multiple choice question	10	
Quantitative	Multiple choice question	10	
Analytical	Multiple choice question	5	
Descriptive Questions	Short Answer (Word count - 500 each)	3	

- Attempt all multiple-choice questions. There is **NEGATIVE MARKING**: you get +2 for a correct answer and -1 for a wrong answer.
- You can make use of the simple calculator which is made available on the screen.
- Attempt all the Descriptive questions. Type in the response in English for the Descriptive question on the test screen. Keep your answer within 500 words.
- A plain paper will be given to you at the test centre, which can be used for rough work.

## Section 2: Topics and Resources

Below is a list of topics, along with suggested textbooks/readings/online videos, to help prepare for the exam. This is not an exhaustive list but should largely cover the main material you will be tested on. We are particularly interested in seeing if students can demonstrate their knowledge of the real-world economic problems.

### 2.1 Microeconomics

**Theory of individual behaviour:** Preferences, utility, utility functions, indifference curves, marginal rate of substitution, constrained optimisation, income and substitution effects, offer curves and demand curves.

**Firms:** Specialisation, economies of scale, cost minimisation and profit maximisation. Supply curves. Competition - Cournot, Bertrand models, perfect competition and monopolies.

**Markets:** Walrasian equilibrium and its assumptions.

**Risk and uncertainty:** Expected utility theory, risk-averse, risk neutral and risk-loving preferences, dealing with risk - insurance.

**Social welfare and public economics:** Different conceptions of social welfare - utilitarian, Rawlsian. First and second welfare theorems. Externalities and public goods. Coasian and Pigouvian solutions to externalities. Taxation, tax incidence, deadweight loss, efficiency and equity considerations.

**Recommended reading:**

CORE textbook available at:

<https://www.core-econ.org/project/the-economy-a-south-asian-perspective/>

<https://www.learn-economics.co.uk/quick-links-microeconomics.html>

**Recommended videos:**

<https://www.khanacademy.org/economics-finance-domain/microeconomics>

<https://www.youtube.com/watch?v=HA2Re3R1pcY>

## 2.2 Macroeconomics

**National income accounting:** national income identities, expenditure based, income based and value-added approach, sectoral balances, components of aggregate demand.

**Fiscal and monetary policy:** Keynesian aggregate expenditure approach, tax and expenditure based multipliers, balanced budget multiplier, interest rate policy, monetary transmission mechanisms, external and internal constraints to expansion, balance of payment constrained growth, inflation targeting. Philips curve, relationship between unemployment and inflation, NAIRU.

**Theories of inflation:** demand pull and cost push inflation, output gaps

**Solow growth model:** Steady state growth, productivity growth, convergence.

### **Recommended reading:**

CORE textbook available at:

<https://www.core-econ.org/project/the-economy-a-south-asian-perspective/>

Froyen, Richard. Macroeconomics: Theories and Policies (any edition): Chapters 3-12 from the 9th edition

<https://www.learn-economics.co.uk/quick-links-macroeconomics.html>

### **Recommended videos:**

<https://www.khanacademy.org/economics-finance-domain/macroeconomics>

<https://www.youtube.com/watch?v=GxJs4ihdKmw>

## 2.3 Quantitative Methods

**Graphs and tables:** basic data interpretation from histograms, trends, scatter plots and tables.

**Descriptive statistics:** Parameters and sample statistics, mean, median, variance, covariance and correlation. Calculating simple probability etc.

### **Recommended reading**

Introduction to Mathematics Statistics by Richard Larsen and Morris Marx

Introductory Statistics by Sheldon Ross

[https://www.economicsnetwork.ac.uk/themes/maths\\_formula\\_sheet.pdf](https://www.economicsnetwork.ac.uk/themes/maths_formula_sheet.pdf)

<https://www.learn-economics.co.uk/Index-numbers.html>

### **Recommended videos:**

<https://www.khanacademy.org/math/statistics-probability>

<https://serc.carleton.edu/mathyouneedecon/slope/index.html>

<https://serc.carleton.edu/mathyouneedecon/percentage/index.html>

[https://economicsnetwork.ac.uk/maths\\_refresher/1.5\\_exponential\\_and\\_logarithmic\\_functions.htm](https://economicsnetwork.ac.uk/maths_refresher/1.5_exponential_and_logarithmic_functions.htm)

<https://serc.carleton.edu/mathyouneedecon/data/index.html>

<https://www.metalproject.co.uk/METAL/Resources/Films/>

## 2.4 Analytical MCQs and Descriptive Questions

The analytical section is 5 MCQs which are designed to assess English language comprehension, logical reasoning, problem solving and critical thinking. The best way to prepare for these questions is to start reading a newspaper on a regular basis and paying attention to how you see economics operating in the world around you.

The descriptive section has 3 short answer questions. These questions will be in three categories:

- (i) Economic theory
- (ii) Real world economic problems
- (iii) Azim Premji University

Below are a list of topics to study on for the descriptive questions:

**Employment:** Employment elasticity, Jobless growth, Occupational segregation, Discrimination in labour markets

**Poverty and Inequality:** Measures and trends

**Social Protection Policies:** Public Distribution System, MGNREGA

**Economics and the Environment:** Environment and development, Sustainable development discourses, Economic models of Environment Issues

### Recommended readings

State of Working India Report 2018, 2019, 2021, 2023: Available for download (free) at:

<https://cse.azimpremjiuniversity.edu.in/state-of-working-india/>

<https://azimpremjiuniversity.edu.in/publications/2023/report/state-of-working-india-2023-social-identities-and-labour-market-outcomes>

## Section 3: Sample MCQs

### Microeconomics

1. Consider the market for a perfectly competitive good called G with a linear downward demand curve. If the price of a substitute good, called S, decreases, what will happen to the demand of the good G?  
(Recall: A demand curve is drawn on a plane with price on Y axis versus quantity on X axis)
  - a) Demand for G will shift to the right, because people will substitute S with G.
  - b) Demand for G will shift to the left, because people will substitute G with S.
  - c) Demand for G will be the same, but the demand curve will become non-linear, because different consumers will substitute G and S in different proportions.
  - d) Demand for G will be the same and it will remain linear, but the slope of the demand curve will change, because the relative price ratio of S and G has changed.
2. It is believed that an educated citizen has positive externalities for other citizens. The government should provide scholarships and subsidies for college education, because:
  - a) The marginal private cost is more than the marginal social cost, hence college education will be under-supplied in competitive equilibrium
  - b) The marginal private cost is less than the marginal social cost, hence college education will be under-supplied in competitive equilibrium
  - c) The marginal private benefit is more than the marginal social benefit, hence college education will be under-demanded in competitive equilibrium
  - d) The marginal private benefit is less than the marginal social benefit, hence the college education will be under-demanded in competitive equilibrium
3. Consider the following 2-person simultaneous moves game

	D	H
d	2, 5	5, 4
h	3, 4	4, 3

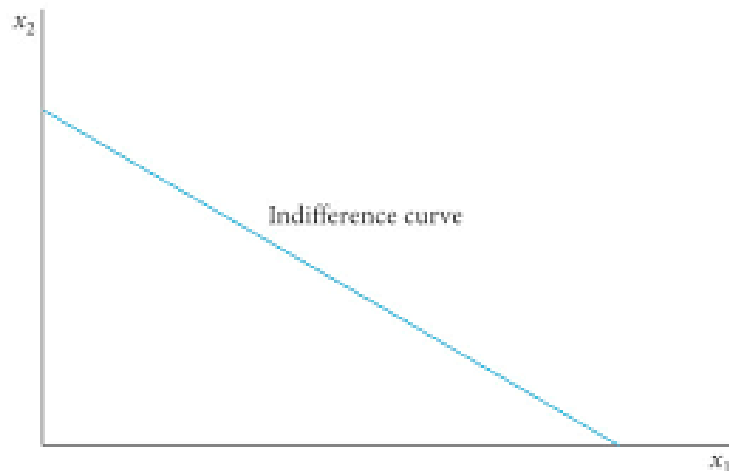
The table above shows the payoff matrix between player 1 who chooses between strategies d and h, and player 2 who chooses between strategies D and H. The first number in each cell denotes the payoff for player 1 and the second number denotes the payoff for player 2. The Nash equilibrium will be:

- A) d, D
- B) d, H
- C) h, D
- D) h, H

4. For the demand function,  $Q_d = 7 - 2P$ , and supply function  $Q_s = 2P - 1$ , the equilibrium price and quantity ( $P_0, Q_0$ ) will be:

- a. (6,4)
- b. (2,5)
- c. (1,3)
- d. (2,3)

5. An indifference curve is shaped as below. Which one of the following is true?



- a. This exhibits a diminishing rate of marginal substitution between items A and B.
- b. This exhibits that a relatively higher share of consumers prefer item  $x_1$  to item  $x_2$ .
- c. This exhibits that items  $x_1$  and  $x_2$  are perfect complements
- d. This exhibits that items  $x_1$  and  $x_2$  are perfect substitutes.

## Macroeconomics

(1) Consider the following set of equations for consumption (C), investment (I), government expenditure (G), exports (X) and imports (M). Consumption and import are affected by output (Y). What is the equilibrium level of output?

a) 61.25

b) 138.88

c) 91.5

d) 101.5

(2) If the growth rate of nominal GDP in a given period is 13% and the growth rate of real GDP is 6%, which of the following statement is correct?

a) Inflation rate is 7%

b) Inflation rate is 13%

c) Inflation rate is 6 %

d) Inflation rate is 19 %

(3) An inflation targeting central bank will respond to higher inflation rate in the following way:

(a) increasing interest rates

(b) reducing interest rates

(c) depreciating the exchange rate

(d) increasing money supply

(4) The value of balanced budget multiplier is:

(a) 0



(b) 1

(c) Greater than 1

(d) Less than 1

(5) If everything else is constant, expansionary fiscal policy will lead to

(a) a movement along the AD curve to the right

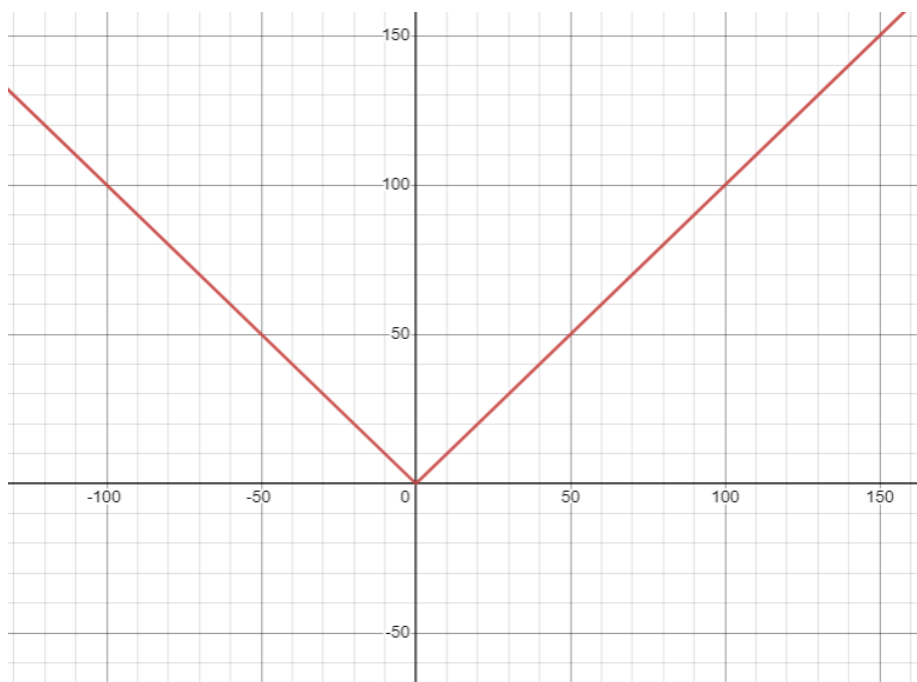
(b) a movement along the AD curve to the left

(c) a rightward shift of the AD curve

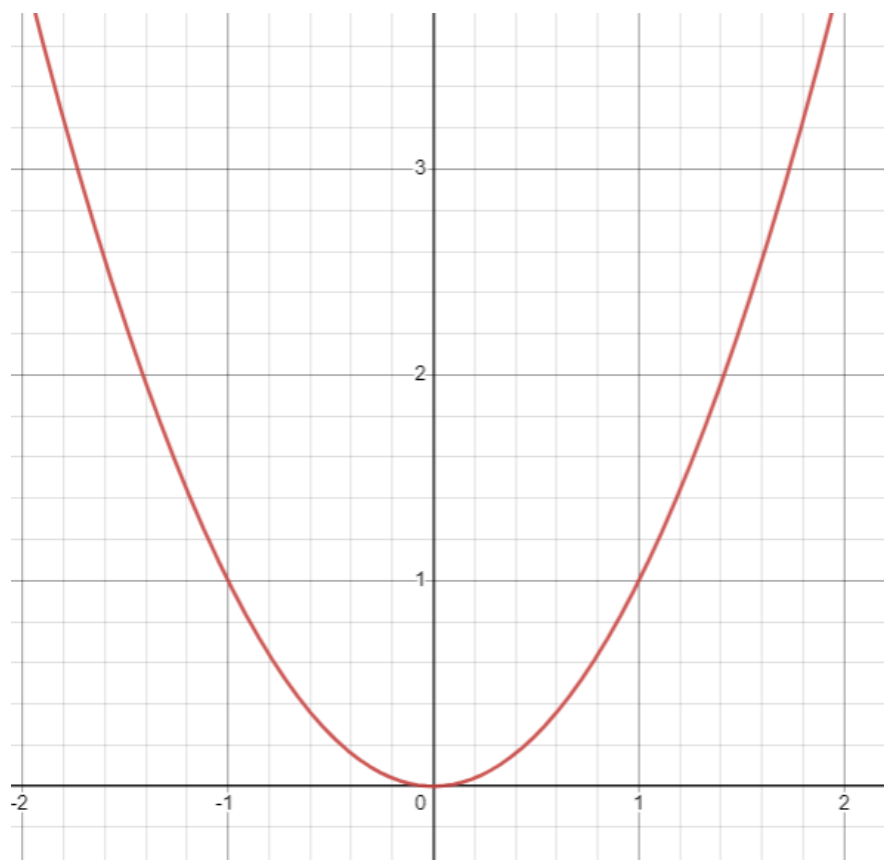
(d) a leftward shift of the AD curve

## Quantitative Methods

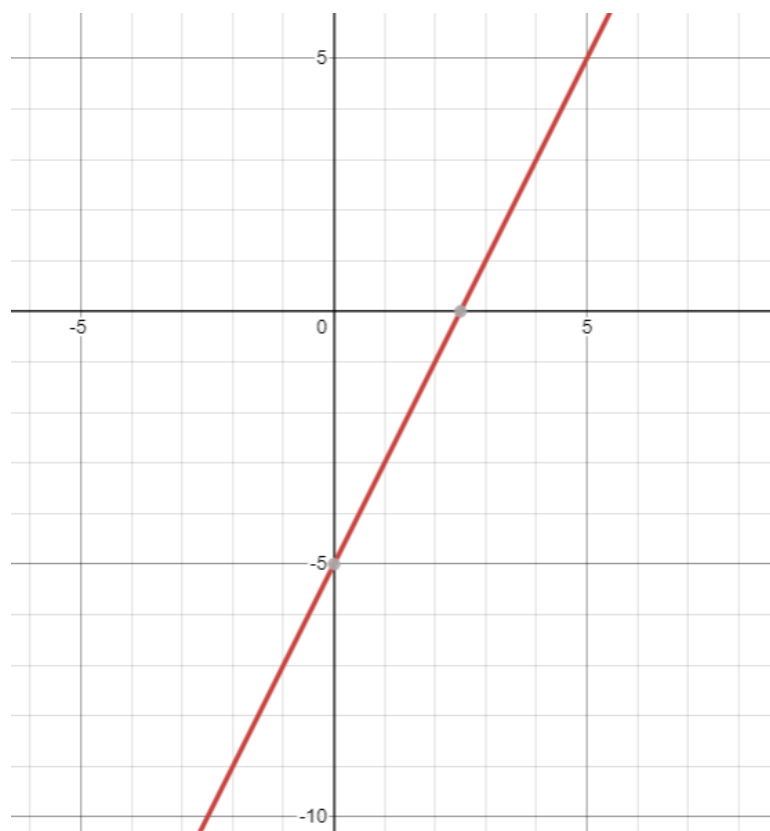
Question 1: Identify the functional forms of the following graphs.



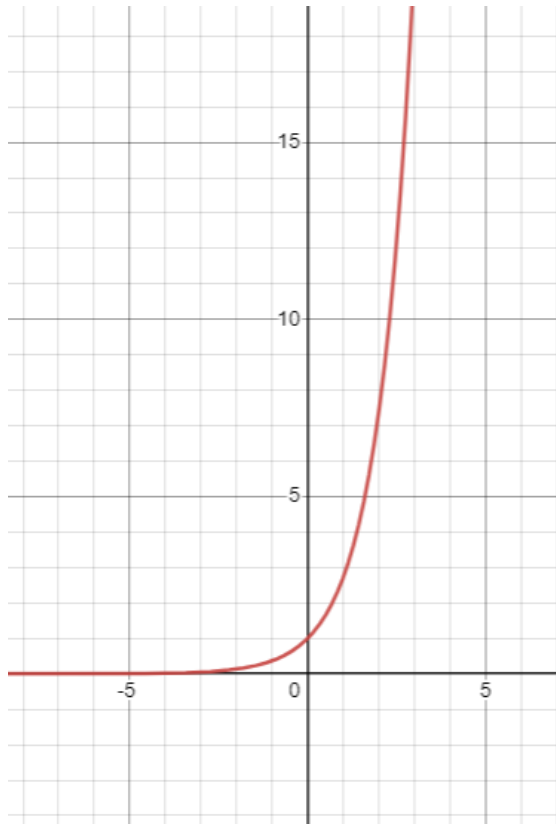
Ans:  $y = |x|$



Ans:  $y = x^2$



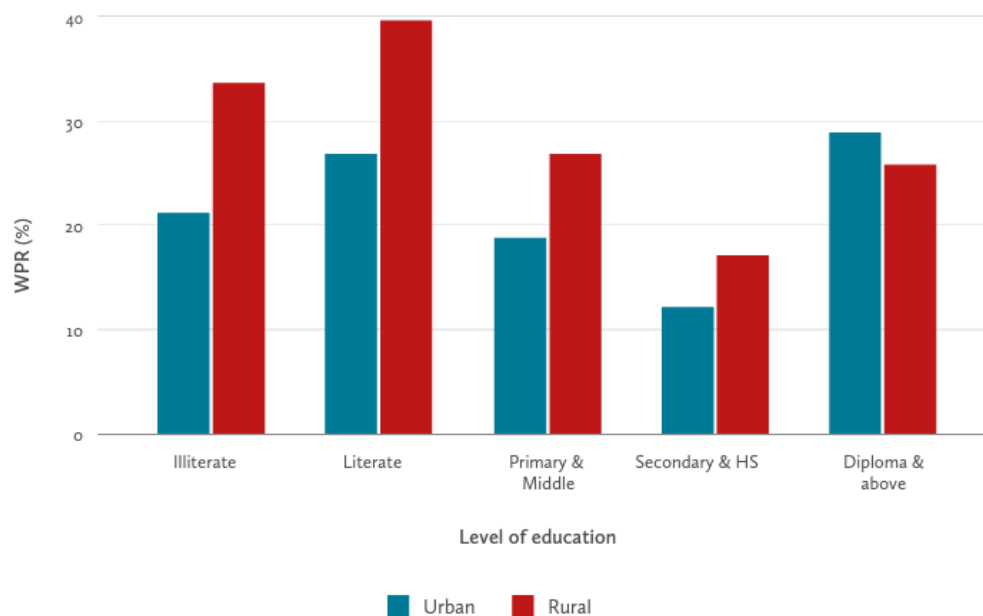
Ans:  $y = 2x - 5$



Ans:  $y = e^x$

Question 2: Based on the graph below we can conclude:

Figure 4.2: Female workforce participation rates by education for 2021-22



Sources and notes: PLFS 2021-22. Employment is defined as per Current Weekly Status.

- a. Illiterate women in urban areas are more likely to find employment as compared to illiterate women in rural areas.
- b. Most employers in the labour market prefer to hire women who have completed higher education.
- c. Overall, rural women participate in the workforce more than urban women.
- d. In urban areas, the number of women with a diploma and/or above is higher than in rural areas.

## Analytical MCQs

1. Amit, an economist, has analysed data on the salary of 200 employees working in a private bank. 150 of these employees are men and the rest are women. Solely based on this data, Amit concludes that the hiring process in the bank is discriminatory towards women. Which of the following statements is true?
  - a) Amit is right because the bank has an unequal number of men and women employees.
  - b) Amit is wrong because the bank pays equal salary to everyone irrespective of their sex.
  - c) Amit is right because women are 50 percent of the population, yet in the bank they are only 25 percent of the employees.
  - d) Amit does not have enough information to conclude that the hiring process in the bank is discriminatory towards women.
2. Control over women's reproductive activities (by men) has two basic consequences. One is that the focal point of women's work becomes the household, since it is there that activities related to physical reproduction are concentrated. This is the basis for the traditional division of labour by which domestic activities are seen exclusively as women's domain. The second consequence is the restriction of women's mobility which is prevalent in most societies though in different degrees of intensity. (L. Beneria, 1979)

Based on this passage, which of the following is false?

- A. Men's control over women's reproductive activities confines women to the household
- B. Men's control over women's reproductive activities reduces the mobility of women
- C. Reproductive activities are concentrated in the public domain
- D. Different societies have different degrees of restrictions to women's mobility

## Descriptive Questions

1. It was observed in 2021 that during the months of June, July, and August, the demand for MGNREGA work in villages went up substantially compared to the same time last year (2020). What do you think were the likely reasons for this increase? How would you go about designing a study to test your hypothesis?
2. Over the years, there have been many calls to replace the in-kind distribution of grains via the Public Distribution System with a cash transfer programme. Do you think this step should be taken? Justify your answer either way.
3. A question about the university, our program or student body. To prepare for this go through the website information about the MA Economics program and the university's approach to education.