

Which of the following is an example of a pure public good?

- A) A restaurant
  - B) A public hospital
  - C) Indian Railways
  - D) Indian Army
- 

A market which was controlled by a monopoly is broken up and is now a competitive market. Which of the following, *ceteris paribus*, is true?

- A) The price is greater than before
  - B) Marginal cost is now upward sloping
  - C) Output is greater than before
  - D) Price is greater than marginal cost
- 

Which of these allocation mechanisms ensure Pareto efficiency?

- A) Rationing
  - B) First come - first served
  - C) Price discrimination
  - D) Lucky draw
- 

Which of the following is most likely to generate a negative externality?

- A) Air pollution in Delhi
  - B) Planting flowers in your garden
  - C) Converting a private park into a public park
  - D) Teaching a class on secularism
- 

An L shaped indifference curve between two goods indicates that:

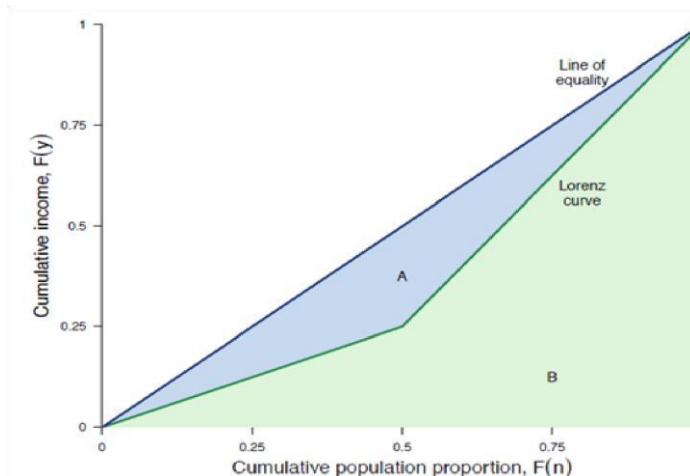
- A) One of the commodities is an economic bad
  - B) The two goods are perfect complements
  - C) The two goods are substitutes
  - D) The consumer is irrational
- 

Following is the utility function  $u(x_A, x_B)$  representing the preferences of an individual over two goods - A and B. Find the utility maximising level of consumption of good A if the price of good A is 2, the price of good B is 1 and the total budget is 20.  $u(x_A, x_B) = x_A^2 - 10x_A + x_B$

- A) 3
- B) 4
- C) 6
- D) 10

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For a society with the following Lorenz curve what would be the Gini coefficient if A is the blue shaded area, B is the green shaded area, and  $A=B/3$ ?



- A) 0.25
- B) 0.5
- C) 0.67
- D) 1.25

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If the government increases GST on sports equipment and the prices of sports equipment **do not** change as a result, then

- A) The incidence of the tax increase has fallen entirely on the producer
- B) The incidence of the tax increase has fallen entirely on the consumer
- C) The incidence of the tax increase is shared between producer and consumer
- D) There is no increase in actual tax paid as there is no price increase

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An expected utility maximiser has a von Neumann - Morgenstern utility function  $u(x)=\sqrt{x}$ , where  $x$  is the amount of money. The person is presented with a lottery where she may win Rs 10,000 with 5% probability. What is the maximum price the person will be willing to pay for the lottery?

- A) Rs. 500
  - B) Rs. 250
  - C) Rs. 50
  - D) Rs. 25
-

Select the best answer

		<b>B</b>	
		L	R
<b>A</b>	U	3,2	3,3
	D	6,2	3,5

- A) U,L is Nash equilibrium and is Pareto efficient
  - B) U,L is Nash equilibrium but is not Pareto efficient
  - C) D,R is Nash equilibrium and is Pareto efficient
  - D) D,R is Nash equilibrium and is not Pareto efficient
- 

Suppose that the inflation in your economy is 3% and you have received an income increase of 5%. How much has your real income increased by?

- A) 8%
  - B) 5%
  - C) 2%
  - D) Can't say
- 

How is crowding out usually understood?

- A) A lower interest rate leads to higher private investment
  - B) A higher government expenditure leads to higher private investment
  - C) A higher government expenditure leads to lower private investment
  - D) A higher interest rate reads to lower private investment
- 

Suppose a 4-sector economy with  $C=C_0+c(Y-tY)$ ,  $I=I_0$ ,  
 $G=G_0$ ,  $X=X_0$ , and  $M=M_0+mY$

Where C, I, G, X, and M refer to consumption, investment, government expenditure, exports, and imports respectively;  
 $C_0$ ,  $I_0$ ,  $X_0$ , and  $M_0$  refer to exogenous consumption, investment, government expenditure, exports, and imports respectively; c and m are the marginal propensities to consume and import, and t refers to the tax rate.

What is the multiplier for this economy?

- A)  $1/(1-c-t-m)$
- B)  $1/(1-c+ct+m)$
- C)  $1/(1-c-ct-m)$

D)  $1/(1-c-ct+m)$

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Compute the GDP of an economy where the

GNP = 34,000 (Rs. crores) and the NFIA (net factor income from abroad) = -3,000 (Rs. crores).

- A) 31,000 (Rs. crores)
  - B) 34,000 (Rs. crores)
  - C) Not enough information is given to be able to calculate answer
  - D) 37,000 (Rs. crores)
- 

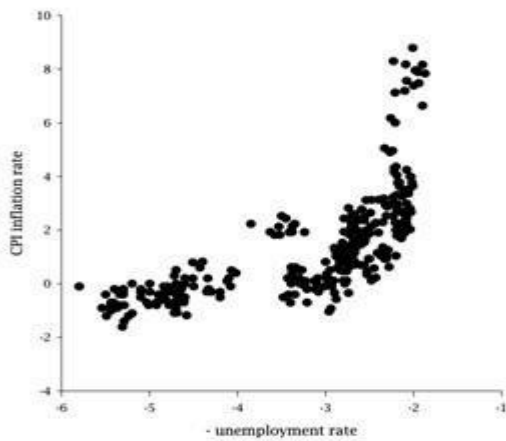
What is the value of the multiplier in an economy with an MPC of 0.25?

- A) 4
  - B) 1.33
  - C) 0.75
  - D) 1
- 

Here is an interesting picture of Japan and its (inverted) Phillips curve (see below). In general, a Phillips curve shows that:



Figure 2: Japan's Inflation Rate and (Minus) Unemployment Rate January 1980 to August 2005



- A) There is a permanent trade-off between inflation and unemployment
- B) There is a temporary trade-off between inflation and unemployment
- C) A country's Phillips curve looks like a map of the country
- D) There is no case for macroeconomic policy

India is experiencing high inflation. Which of the following is not likely to be a cause?

- A) Fiscal deficits are high
- B) There is labor market slack
- C) Interest rates are low
- D) Oil prices are high

*"We investigate whether U.S. government spending multipliers are higher during periods of economic slack or when interest rates are near the zero lower bound. We estimate multipliers that are below unity irrespective of the amount of slack in the economy. These results are robust to two leading identification schemes, two different estimation methodologies, and many alternative specifications."*

*In contrast, the results are more mixed for the zero lower bound state, with a few specifications implying multipliers as high as 1.5.*

The above is an abstract from Valerie Ramey and Sarah Rubairry: Government Spending Multipliers in Good Times and in Bad: Evidence from US Historical Data, *Journal of Political Economy*, 2018, vol. 126, issue 2, 850 - 901

Which of the following statements is true from the above?

- A) There is no evidence of crowding out of private investment
- B) When interest rates are low, fiscal policy is most effective
- C) When there is labor market slack, multipliers are large
- D) Monetary policy is more effective than fiscal policy

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If the RBI increases the repo rate, it is usually doing so to:

- A) Reduce inflation
- B) Increase output
- C) Increase inflation
- D) Decrease output

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Economists need to understand caste, religion and gender in India when studying educational outcomes because

- A) There is a caste, religion and gender penalty in educational outcomes.
- B) Educational outcomes are determined only on the basis of merit
- C) Educational outcomes are determined by teachers
- D) Individual characteristics matter more than group based characteristics

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An economic system is capitalist if

- A) Ownership of land and wealth are sufficiently concentrated
- B) Advanced technology is extensively used in production
- C) Private owners of capital goods hire wage labour to produce for profit
- D) The bulk of production is non-agricultural

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In India

- A) The smallest proportion of workers are in the agricultural sector but this sector has the highest contribution to GDP
  - B) The highest proportion of workers are in the agricultural sector but this sector has the lowest contribution to GDP
  - C) The highest proportion of workers are in the agricultural sector and this sector has the highest contribution to GDP
  - D) The smallest proportion of workers are in the agricultural sector and this sector has the lowest contribution to GDP
- 

Which of the following statements is true?

- A) Inequality of asset ownership is greater than inequality of income which is greater than inequality of consumption
  - B) Inequality of consumption is greater than inequality of income which is greater than inequality of asset ownership
  - C) Inequality of asset ownership is greater than inequality of consumption which is greater than inequality of income
  - D) Inequality of consumption is greater than inequality of asset ownership which is greater than inequality of income
- 

Economic growth in India over the last few decades can be described as

- A) High growth has been associated with high levels of employment growth
  - B) Low growth has been associated with low levels of employment growth
  - C) High growth has been associated with low levels of employment growth
  - D) Low growth has been associated with high levels of employment growth
- 

The GDP per capita in India in 2017 is roughly

- A) \$2000
  - B) \$1000
  - C) \$200
  - D) \$20000
- 

Which of the following is true about India's labor force?

- A) India's labor force is 1.3 billion
  - B) Indian women and men participate equally in the labor force
  - C) India's informal labor force is larger than its formal labor force
  - D) India's labor force in the metros is larger than the labor force outside the metros
- 

In 1991, the Indian government began the program of liberalization. Which of these is an example of a policy of liberalization?

- A) De-licensing of industries
- B) NREGA
- C) Minimum Support Price
- D) Jan Dhan Yojana

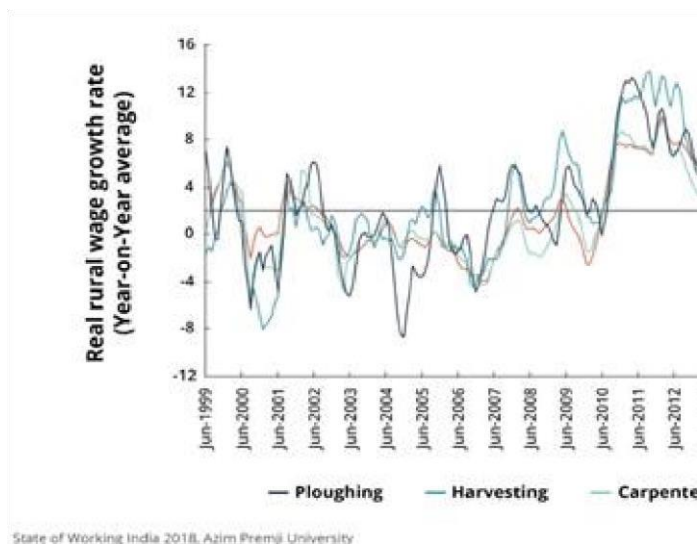
In 1965-66 the Indian economy experienced the largest fall in growth rate that it has experienced after independence. The primary reason for this fall in growth rates was

- A) Wars with China and Pakistan
- B) Withdrawal of PL 480 aid by USA
- C) Failure of monsoons
- D) Crash in prices of agricultural goods in the world economy

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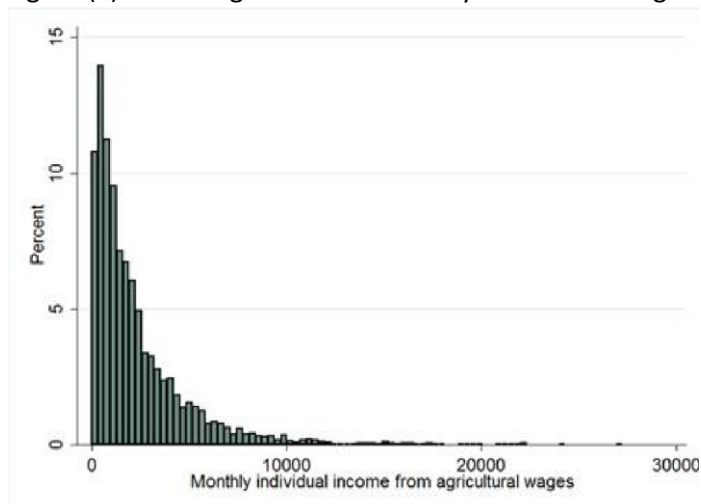
Figure (X) shows the growth rate for real wages for men in selected occupations in rural India. Which of the following statement is correct according to Figure X?



- A) Real wages in 2013 were lower than in 2011
- B) Real wages in 2013 were higher than in 2011
- C) There is not enough information to compare wages
- D) Only the real wage for ploughing was lower in 2013 than in 2011

Directions for below Questions:

Figure (Y) is a histogram of the monthly income from agricultural wages.



Source: Indian Human Development Survey 2011-12.

Choose the correct statement based on Figure Y.

- A) The mean of the distribution is greater than the median
- B) The median of the distribution is greater than the mean
- C) We cannot compare the mean and the median of the distribution
- D) The mean for this distribution does not exist

Imagine that every person represented in Figure (Y) received an additional agricultural income of Rs 1000 per month.

- A) The mean, median and variance of the distribution would increase
- B) The mean and the median would increase, but the variance would remain the same
- C) The mean would increase but the median and the variance would remain the same
- D) All three - mean, median and variance would remain unchanged

Suppose  $Y_i$  is a random variable. Then  $E(Y_i)$  is

- A) A random variable with finite non-zero variance
  - B) A random variable with infinite variance
  - C) A constant with zero variance
  - D) A constant with finite non-zero variance
-

Directions for below Questions:

Table (Z) below shows the results of regressions on a country-level dataset. The variable *Ruggedness* is an index of the ruggedness of the terrain of a country.  $I^{Africa}$  is a dummy variable that is 1 if the country is in Africa.

	Dependent Variable: Log Real GDP per Person, 2000					
	(1)	(2)	(3)	(4)	(5)	(6)
Ruggedness	-0.203 (0.093)**	-0.196 (0.094)**	-0.203 (0.094)**	-0.243 (0.092)**	-0.193 (0.081)**	-0.231 (0.077)**
Ruggedness × $I^{Africa}$	0.393 (0.144)**	0.404 (0.146)**	0.406 (0.138)**	0.414 (0.157)**	0.302 (0.130)**	0.321 (0.127)**
$I^{Africa}$	-1.948 (0.220)**	-2.014 (0.222)**	-1.707 (0.325)**	-2.066 (0.324)**	-1.615 (0.295)**	-1.562 (0.415)**
Diamonds		0.017 (0.012)				0.028 (0.010)**
Diamonds × $I^{Africa}$		-0.014 (0.012)				-0.026 (0.011)**
% Fertile soil			0.000 (0.003)			-0.002 (0.003)
% Fertile soil × $I^{Africa}$			-0.008 (0.006)			-0.009 (0.007)
% Tropical climate				-0.007 (0.002)**		-0.009 (0.002)**
% Tropical climate × $I^{Africa}$				0.004 (0.004)		0.006 (0.004)
Distance to coast					-0.657 (0.177)**	-1.039 (0.193)**
Distance to coast × $I^{Africa}$					-0.291 (0.360)	-0.194 (0.386)
Constant	9.223 (0.143)**	9.204 (0.148)**	9.221 (0.200)**	9.514 (0.164)**	9.388 (0.134)**	9.959 (0.195)**
Observations	170	170	170	170	170	170
R <sup>2</sup>	0.357	0.367	0.363	0.405	0.421	0.537

Coefficients are reported with robust standard errors in brackets. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels.

Source: Nunn, N., & Puga, D. (2012). Ruggedness: The blessing of bad geography in Africa. *Review of Economics and Statistics*, 94(1), 20-36.

From Table (Z), the point estimates in regression 5 indicate that one unit increase in the distance to coast in an African country is associated with an average decrease in log(GDP per person) by

- A) 0.657
- B) 0.291
- C) 0.948
- D) 0.366

From Table (Z), the value of the constant in regression 1 (9.223) indicates

- A) The log(GDP per person) of a non-African country with ruggedness index 0
- B) The average log(GDP per person) of all non-African countries in the sample
- C) The log(GDP per person) of the country with the lowest ruggedness
- D) None of the above

Choose the statement that best summarises the results presented in Table (Z)

- A) Diamonds, soil fertility, tropical climate and distance to coast are not statistically significant determinant of the per capita incomes of African countries, whereas all of these except soil fertility are statistically significant determinants of per capita income for nonAfrican countries
- B) African countries with more rugged terrain tend to have higher per capita incomes than those with less ruggedness, whereas in non-African countries the relationship is the opposite
- C) Ruggedness increases per capita GDP in African countries and decreases it in non-African countries
- D) African countries are poorer on average and hence ruggedness increases per capita income in those countries

Using Table (Z), a researcher proposes to use annual Rainfall in a district as an Instrumental Variable for district level Agricultural Wage. Which of the following statements is correct?

- A) It is a valid instrument because it is correlated with *Agricultural Wage*
- B) It is a valid instrument because it is exogenous
- C) It is a valid instrument because it is exogenous *and* it is correlated with *Agricultural Wage*
- D) The information given is not sufficient to determine whether it is a valid instrument or not

In statistical inference, it is customary to judge any large sample t-statistic larger than 2 (in absolute value) as

- A) Useless evidence as it does not give us information about the likelihood of the null hypothesis being true
- B) Evidence in favour of the null hypothesis used to construct it
- C) Evidence against the null hypothesis used to construct it as the statistic taking such a large value is a likely event
- D) Evidence against the null hypothesis used to construct it as the statistic taking such a large value is an unlikely event

I have panel data on  $n$  workers over  $t$  periods. I want to run a Mincerian regression to find the effect of education on wages while controlling for individual timeinvariant unobservable characteristics. The following three methods are proposed to run the regression.

- (A) Calculate the mean-deviation of wage and education for each individual by subtracting their individual mean wages and mean educations from their actual wage and education. Then run an OLS with the de-meanned variables.
- (B) For each individual, subtract the wage (and education) of period 1 from that of period 2, period 2 from period 3 and so on. Then run an OLS of the differenced variables.
- (C) Add  $n-1$  dummy variables, one for each individual (except one) and then run an OLS

The correct methods is/are-

- A) Only A
- B) A and B but not C
- C) A, B and C

D) Only C

---

Consider the following utility functions over two goods  $x$  and  $y$ .

$$u_1(x,y)=ax+by$$

$$u_2(x,y)=x^a y^b$$

$$u_3(x,y)=a \ln(x) + b \ln(y)$$

Which of the three utility functions have the same marginal rates of substitution for any given values of  $x$  and  $y$ .

- A)  $u_1(x,y)$  and  $u_2(x,y)$
- B)  $u_2(x,y)$  and  $u_3(x,y)$  C)  $u_1(x,y)$  and  $u_3(x,y)$
- D) None of the above

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A social planner has a Utilitarian social welfare function. The planner assumes that all individuals in the society have identical utility functions with diminishing marginal utility of money i.e. the utility function is concave with respect to money. This implies that any transfer of money from the rich to the poor will

- A) Increase social welfare
- B) Decrease social welfare
- C) Leave social welfare unchanged
- D) Not enough information to determine the change in social welfare

---

Suppose a person choosing between fish ( $x$ ) and money ( $y$ ) has the following utility function:  $u(x, y) = y + 10x - x^2$

Let the price of fish be 2 and the price of money be 1. If the person has a budget of 30, find the amount of fish the person can buy to maximise their utility.

- A) 8
- B) 5
- C) 4
- D) 2

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A tax increase will not cause any deadweight loss if

- A) The supply is inelastic
- B) The demand is inelastic
- C) The tax is lumpsum
- D) All of the above

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	H	M	L
h	2,2	3,3	4,4
m	3,5	5,1	2,4
l	4,2	2,2	5,3

The table above shows the payoff matrix between player 1 who chooses between strategies  $h$ ,  $m$  and  $l$ , and player 2 who chooses between strategies  $H$ ,  $M$  and  $L$ .

The first number in each cell denotes the payoff for player 1 and the second number denotes the payoff for player 2. We consider only pure strategies.

Select the correct statement:

- A) The Nash equilibrium is  $(l,L)$  and it is Pareto efficient
- B) The Nash equilibrium is  $(l,L)$  and it is not Pareto efficient
- C) The Nash equilibrium is  $(h,L)$  and it is Pareto efficient
- D) The Nash equilibrium is  $(h,L)$  and it is not Pareto efficient

---

A person was offered a choice between

- (i) A lottery of Rs 100 with 50% probability and Rs 20 with 50% probability,
  - (ii) A sure amount of Rs 50
- If the person chooses (ii), then according to the expected utility theory, the person is

- A) Risk averse
- B) Risk neutral
- C) Risk loving
- D) The person's risk preference cannot be inferred from the given information

---

Consider an indifference curve of a utility function of a consumer over two goods. Which of the following statement is true about the curve?

- A) Utility increases as you move along the indifference curve from left to right
- B) The point of intersection of two indifference curve is the optimal point of consumption
- C) The slope of the indifference curve is equal to the marginal rate of substitution between the two goods
- D) All of the above

---

Which of the following production functions has constant returns to scale?

- A)  $f_1(l,k)=l^{0.3}k^{0.7}$
- B)  $f_2(l,k)=l+2k$
- C)  $f_3(l,k)=\min\{3l,k\}$
- D) All the above

---

Assume that the price-elasticity of demand for adult footwear is relatively high, while the price-elasticity of demand for children's footwear is low. The elasticity of supply for both is the same. Now if GST on both adult's footwear and children's footwear is increased by five percentage points, what would happen to their prices?

- A) Both their prices would increase by the same proportion
- B) The price of adult footwear would see a higher proportional increase
- C) The price of children's footwear would see a higher proportional increase
- D) Prices would remain unchanged

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Traffic is a big problem in Bangalore. A Pigouvian solution to the problem would be

- A) A government law restricting the number of vehicle  
(like Delhi's odd-even rule)
- B) A congestion charge to be paid by every vehicle in the city
- C) Increase in the width of roads to accommodate more cars
- D) All of the above

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Suppose a 4-sector economy with

$$C=10+0.8(Y-T), I=10, G=50, X=40, T=50 \text{ and } M=10+0.3Y$$

Where C, I, G, X, T and M refer to consumption, investment, government expenditure, exports, taxes and imports respectively. What is equilibrium income in this economy?

- A) 170
  - B) 120
  - C) 200
  - D) 220
- 

Monetary policy will have the largest effect on income when

- A) The IS curve is steep and the LM curve is steep
  - B) The IS curve is flat and the LM curve is steep
  - C) The IS curve is flat and the LM curve is flat
  - D) The IS curve is steep and the LM curve is flat
- 

From the Quantity Theory of Money if M increases by 5 percent and V increases by 2 percent, then

- A) Real income increases by approximately 7 percent
  - B) The price level increases by approximately 5 percent
  - C) Nominal income increases by approximately 5 percent
  - D) Nominal income increases by approximately 7 percent
- 

You observe that the government is increasing infrastructural spending. This could be a response to:

- A) Higher unemployment
  - B) Slow Economic Growth
  - C) A recognized period of recession
  - D) All of the above
- 

According to the Solow model, persistently rising output and living standards can only be explained by:

- A) Capital accumulation
  - B) High savings rates
  - C) Population growth
  - D) Technological progress
- 

What is the value of the multiplier in a closed economy with a Marginal Propensity to Save of 0.25?

- A) 4
- B) 1.33
- C) 5
- D) 1

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The value today associated with receiving Rs. 100 two years from today when the annual interest rate is 5% is

- A) Rs. 100
- B) Rs. 90.7
- C) Rs. 90
- D) Rs 95.2

---

If the government increases its spending which of the following could occur?

- A) Unemployment decreases
- B) Inflation increases
- C) The fiscal deficit rises
- D) All of the above

---

Which of the following are possible consequences of a fiscal expansion?

- A) An increase in the trade deficit
- B) Deflation
- C) A reduction in national income
- D) A rise in unemployment

---

Which of the following is true?

- A) Real GDP is always greater than Nominal GDP
- B) Nominal GDP is always greater than Real GDP
- C) Real GDP excludes some sectors counted in nominal GDP
- D) Real GDP is lower than Nominal GDP if inflation is positive

---

Consider two random variables  $x$  and  $Y$ . Looking at the scatter between  $x$  and  $Y$ , the researcher contemplates the following population regression:

$$Y = \beta_0 + \beta_1 x_2 + \beta_2 x_3 + \beta_2 e_x + \varepsilon.$$

Which of the following statements is true:

- A) OLS cannot be applied as the equation is cubic in  $x$

- B) OLS cannot be applied as the equation contains  $e^x$  term  
 C) OLS cannot be applied as the equation is cubic in  $x$  and contains  $e^x$  term  
 D) OLS can be applied despite cubic in  $x$  and  $e^x$  term

$$\frac{\sum (x_i - \bar{x})^2}{n}$$

The degrees of freedom of the sample variance  $s$ , defined as  $\frac{\sum (x_i - \bar{x})^2}{n}$  is

- A)  $n$   
 B)  $n - 1$   
 C)  $n - 2$   
 D)  $\sqrt{n}$

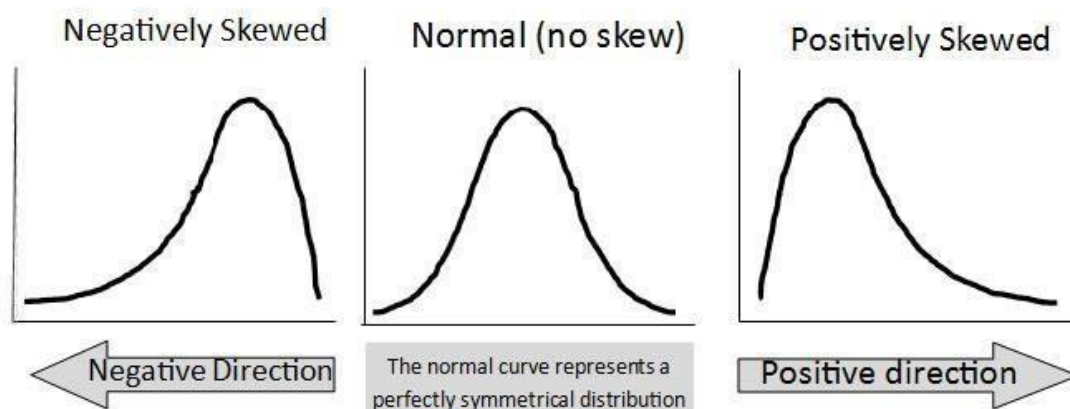
Consider a sample of  $n$  observations. The sample proportion of a binary categorical variable coded as 0/1 can be seen as,

- A) The sample median of the sequence of 1s and 0s  
 B) The sample mode of the sequence of 1s and 0s  
 C) The sample mean of the sequence of 1s and 0s  
 D) None of the above

In set theory, if A and B are independent events, it follows that:

- A) A and B' (B complement) are independent  
 B)  $P(A \cap B) = P(A) + P(B)$   
 C)  $P(A \cap B) = P(A/B)$   
 D) All of the above

Please refer to the figure below:



- A) The mean and the median are the same value for all three plots  
 B) The mean is lower than median for the plot on the left (marked Negative Direction), while it is higher than median for plot on the right (marked Positive direction)

- C) The mean is higher than median for the plot on the left (marked Negative Direction), while it is lower than median for plot on the right (marked Positive direction)
- D) The mean and median cannot be the same value for all three plots shown above
- 

An oil exploration company currently has two active projects, one in Asia and the other in Europe such that the success of each project is independent of the other project. The probability that the Asian project is successful is 0.4, and the probability that the European project is successful is 0.7. Suppose you are told that the Asian project is not successful. Then, the probability that the European project is also not successful is,

- A) 0.7
- B) 0.28
- C) 0.3
- D) Indeterminate (cannot be specified)
- 

In the context of hypothesis testing consider the following three statements:

- i. Even if the sample weakly contradicts the null hypothesis, the null hypothesis will be rejected.
- ii. Only if the sample strongly contradicts the null hypothesis, the null hypothesis will be rejected
- iii. The researcher approaches a test, assuming the null hypothesis to be true.

Which of the following is true

- A) Only i. is correct
- B) Only ii. is correct
- C) Both i. and iii. are correct
- D) Both ii. and iii. are correct
- 

Consider the following regression equation:

$$Y = \beta_0 + \beta_1 x^2 + \beta_2 (x * z) + \varepsilon.$$

Which of the following statements is true assuming this is the correct population equation:

- A) The partial effect  $z$  is given by  $2\beta_1 x + \beta_2 x$
- B) The partial effect  $z$  is given by  $2\beta_1 x + \beta_2$
- C) The partial effect  $z$  is given by  $\beta_2 x$
- D) The partial effect  $z$  is given by  $\beta_2$
-

If random variable X follows Poisson Distribution and random variable Y follows Binomial Distribution, then

- A) X must be discrete and Y must be continuous
  - B) X must be continuous and Y must be discrete
  - C) X and Y must both be discrete
  - D) X and Y must both be continuous
- 

A family has moved into a new neighborhood. The neighborhood has two medical clinics. Each medical clinic has two obstetricians and three pediatricians. The family requires the services of both types of doctors but is constrained to choose both doctors from the same clinic. In how many ways can this be done?

- A) 10
  - B) 8
  - C) 36
  - D) 12
- 

The poverty head count ratio measures

- A) The depth of poverty below the poverty line
  - B) The percentage of people living below the poverty line
  - C) The number of people living below the poverty line
  - D) The amount of inequality between the rich and the poor
- 

The term "jobless growth" refers to

- A) A rise in proportion of women out of the labour force
  - B) A strong rise in unemployment accompanied by strong GDP growth
  - C) A strong rise in the youth unemployment rate despite high GDP growth
  - D) A weak rise in employment despite high GDP growth
- 

Until recently, the Indian economy followed the five year plan model of planning, which means that the government makes plans which are adhered to for five years. However, Indira Gandhi suspended five year plans and followed annual budgets from 1966-69. Why did she do this?

- A) Congress did not have a majority government in the Lok Sabha
  - B) Food shortages and a sharp spike in inflation caused by monsoon failures
  - C) Threat of Maoist and Naxalite movements
  - D) War between India and Pakistan
-

In India

- A) The smallest proportion of workers are in the agricultural sector, but this sector has the highest contribution to GDP
  - B) The highest proportion of workers are in the agricultural sector, but this sector has the lowest contribution to GDP
  - C) The highest proportion of workers are in the agricultural sector and this sector has the highest contribution to GDP
  - D) The smallest proportion of workers are in the agricultural sector and this sector has the lowest contribution to GDP
- 

What is the aim of Ayushman Bharat Yojna – National Health Protection scheme

- A) Health care insurance coverage for scheduled caste, scheduled tribe and low income households
  - B) Free health care of all Indian citizens
  - C) Subsidization of hospital charges for low income households
  - D) Free checkup in public hospitals
- 

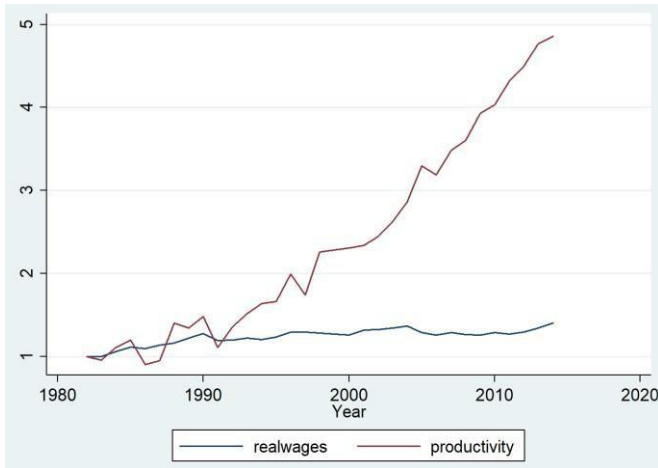
In 2005 the Government of India introduced a programme that guaranteed 100 days of employment per year per household in rural areas. What is the name of this programme?

- A) Sampoorn Grameen Rozgar Yojana (SGRY)
  - B) National Rural Employment Guarantee Act (NREGA) which was later renamed the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)
  - C) National Rural Livelihoods Mission (NRLM)
  - D) Skill India Mission
- 

After liberal reforms were introduced in 1991, the government decided to dis-invest public sector enterprises (PSE). What does dis-investment mean in this context?

- A) Allowing private companies to invest in sectors which were only controlled by PSE's like telecommunication
  - B) The selling of government equity in public sector undertakings
  - C) Selling off assets of PSE to private companies
  - D) Shutting down Public Sector Enterprises
- 

This graph on wages and productivity for India shows



- A) productivity gains have NOT been associated with proportionate rises in real wages
- B) productivity gains have been associated with proportionate rises in real wages
- C) productivity gains have been associated with rising formalization of work
- D) productivity gains have been associated with the rise of women in the work force

Work in India is characterized by

- A) the majority of workers in the organized sector
- B) the majority of workers in the unorganized sector
- C) the majority of workers out of the labour force
- D) the majority of women entering the paid labour force

The Gender Wage Gap refers to...

- A) Average difference in wages (or remuneration) of women compared to men who are working
- B) Average difference in time spent working of women compared to men
- C) Standard deviation of wages for women compared to men.
- D) Difference between the highest paid women workers and the highest paid male workers

Let the utility function of an individual indicating their preferences over the quantity of two goods denoted by  $x$  and  $y$ , be given by  $u(x,y)=x-y$ . Then the marginal rate of substitution between these two goods, and the slope of the indifference curves denoting this utility function would respectively be

- A) 1 and 1
- B) 1 and -1

- C) -1 and 1
  - D) -1 and -1
- 

Let  $y(k,l)$  be a production function such that  $y(4k,4l)=2y(k,l)$ , then the production function exhibits:

- A) Constant returns to scale
  - B) Increasing returns to scale
  - C) Decreasing returns to scale
  - D) Linearity
- 

When a market is perfectly competitive then the *marginal revenue* for a firm

- A) Increases as it produces more
  - B) Decreases as it produces more
  - C) Depends on the cost function
  - D) Is equal to the price
- 

Let A and B be two individuals, and  $x_A$  and  $x_B$  be the amounts of a good consumed by them respectively. If one wants to model a situation where individual A is self-centred and individual B is altruistic, which pair of utility functions best represents this case?

- A)  $u_A(x_A, x_B)=x_A + x_B$  and  $u_B(x_A, x_B)=x_A + x_B$
  - B)  $u_A(x_A, x_B)=x_A$  and  $u_B(x_A, x_B)=x_A + x_B$
  - C)  $u_A(x_A, x_B)=x_A + x_B$  and  $u_B(x_A, x_B)=x_B$
  - D)  $u_A(x_A, x_B)=x_A$  and  $u_B(x_A, x_B)=x_B$
- 

Two people, A and B, are expected utility maximisers. A's utility function is given by  $u_A(x)=x^2$ . B's utility function is given by  $u_B(x)=\sqrt{x}$ . Both are offered a lottery ticket worth Rs 100, and the prize money of Rs 10,000. The probability of winning the lottery is 0.9%. Which one of them is going to buy the ticket?

- A) A will buy the ticket
  - B) B will buy the ticket
  - C) Both A and B will buy the ticket
  - D) Neither A nor B will buy the ticket
-

Consider the following two statements about a simple two-person, two good exchange economy where there are no externalities, information is perfect, neither individuals have any market power, and utility functions are 'well-behaved'.

A: All Pareto efficient outcomes are achievable through competitive equilibria

B: All competitive equilibria are Pareto efficient

A) Both A and B are true

B) A is true but B is not

C) B is true but A is not

D) Neither A nor B is true

---

Consider four different possible market structures for a homogenous good with constant marginal cost. Assume that the demand function is identical in all four cases.

1: Cournot or quantity competition with two firms. Price:  $p_1$

2: Cournot or quantity competition with infinitely many firms. Price:  $p_2$

3: Bertrand or price competition with two firms. Price:  $p_3$

4: Bertrand or price competition with infinitely many firms. Price:  $p_4$

Which of the following statements about the prices is true?

A)  $p_1 = p_2 = p_3 = p_4$

B)  $p_1 > p_2 = p_3 = p_4$

C)  $p_1 > p_2 = p_3 > p_4$

D)  $p_1 > p_2$  and  $p_3 > p_4$

---

A person's utility function over the amount of rice in kg ( $r$ ) and amount of dal in kg ( $d$ ) is given by  $u(r,d)=r^{0.4}d^{0.6}$ . The person already has 5 kgs of rice at home that can be consumed but not sold. Now the person heads off to the market to purchase rice and dal with a budget of Rs 100. Now his utility function can be written as  $u(r_p,d)=(r_p+5)^{0.4}d^{0.6}$ , where  $r_p$  is the amount of rice purchased, and the amount of rice consumed  $r=r_p+5$ . If the price of rice is 1 rupee per kg and the price of dal is 2 rupees per kg, what is the amount of rice that the person will purchase?

A) 37

B) 40

C) 60

D) 63

---

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)  $h, H$
- 

A firm has three components of its production cost. It has a fixed cost  $c_f$  of 10 units that is independent of the production level. It has raw material cost  $c_r$  that varies linearly with the quantity produced. It has labour cost  $c_l$  that varies as the square of the quantity produced. Hence total cost  $c = c_f + c_r + c_l$ . The marginal cost of this firm will be

- A) Constant with quantity produced
  - B) Increasing at a constant rate with quantity produced
  - C) Increasing at an increasing rate with quantity produced
  - D) Increasing at a decreasing rate with quantity produced
- 

Consider an open economy where the savings propensity is 0.3 and import propensity is 0.2. The value of the multiplier is

- A) 1.5
  - B) 2
  - C) 3
  - D) 4
- 

If the growth rate of nominal GDP in a given period is 9% and the growth rate of real GDP is 5%, which of the following statements is correct?

- A) Inflation rate is 4%
  - B) Inflation rate is 14%
  - C) Inflation rate is 1.8%
  - D) Inflation rate cannot be calculated from the given information
-

Consider a closed economy without government intervention. By the income method, gross domestic product is found to be equal to the sum of wages and profits. Assume that all wages are spent on consumption expenditure and all profits are saved. If investment is Rs 50 billion, which of the following statements is correct?

- A) Profit is less than Rs 50 billion
  - B) Profit is equal to Rs 50 billion
  - C) Profit is greater than Rs. 50 billion
  - D) Profit cannot be determined from given information
- 

Assume that the only tax which the government levies in an economy is the lump-sum tax. The economy is demand constrained. The government increases expenditure by maintaining a *balanced budget*. Which of the following remarks would be *wrong*?

- A) Change in government expenditures would be equal to change in taxes
  - B) The value of the multiplier would be greater than 1
  - C) Higher government expenditure would lead to higher output
  - D) The consumption expenditure would remain unchanged
- 

$C=10+0.5Y$ ,  $I=20$ ,  $G=30$ ,  $X=5$  and  $M=0.3Y$ . If C, I, G, X, M and Y denote consumption, investment, government expenditure, export, import and GDP respectively, what is the equilibrium level of GDP ?

- A) 61.25
  - B) 81.25
  - C) 91.5
  - D) 101.5
- 

The original Phillips Curve is argued to be negatively sloped in the inflation-unemployment space on the basis of the following assumption:

- A) Higher employment leads to higher expected price
  - B) Higher employment leads to higher nominal wage rate
  - C) Higher inflation leads to higher output and employment
  - D) Higher employment leads to higher mark-up
-

Consider a closed economy with positive government expenditure and zero taxes. The output is constrained by aggregate expenditure. Aggregate savings is the product of savings propensity and output, where savings propensity is fixed and less than 1. The government expenditure and interest rate are exogenously given. Investment decisions are formed on the basis of expectations as argued by Keynes and it responds negatively to changes in interest rate. Which of the following statements is *wrong*?

- A) If government expenditure rises by Re. 1, aggregate savings increases by Re.1
  - B) If savings propensity rises, aggregate savings rises
  - C) If interest rate rises, aggregate savings fall
  - D) If investment rises by Re.1, output rises by more than Re.1
- 

Consider an open economy where output is constrained by balance of payment. The net capital inflow is zero, real exchange rate is fixed, and trade is balanced in every period. The level of import at any given period is equal to the product of import propensity of output and the level of output. The import propensity of output is *fixed* at 0.25 for any given period. If *growth rate* of export is 5%, then the growth rate of output for that period is

- A) 1.25%
  - B) 5%
  - C) 20%
  - D) Cannot be determined from the given information
- 

The growth rate of labour productivity of an economy is 3%, whereas the growth rate of labour supply is 1%. What would be the steady state growth rate of output in Solow model?

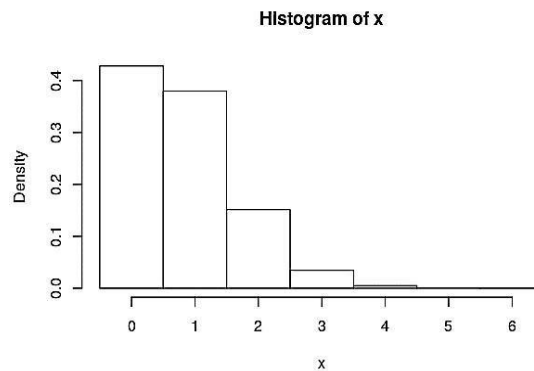
- A) 2%
  - B) 3%
  - C) 4%
  - D) None of the Above
- 

Suppose there are 2 countries, the Goldland and the Creditmoneyland. The output in both the countries are equal in the initial period. In both the economies, the IS schedule is negatively sloped. The money supply is fixed in Goldland and interest rate is determined by money demand at given money supply. In Creditmoneyland, the interest rate is fixed by central bank and money supply is determined by money demand. Now government expenditures increase by 1 unit in both the countries. The output rises to  $Y_G$  and  $Y_C$  and in Goldland and Creditmoneyland respectively. If everything else is similar between the 2 countries, which of the following is correct?

- A)  $Y_G > Y_C$
- B)  $Y_C > Y_G$

- C)  $Y_C = Y_G$   
D) Cannot be determined from the given information
- 

From the following histogram of a variable  $x$ , which of the options is true.



- A) Mean of  $x <$  Median of  $x$   
B) Mean of  $x =$  Median of  $x$   
C) Mean of  $x >$  Median of  $x$   
D) Impossible to say
- 

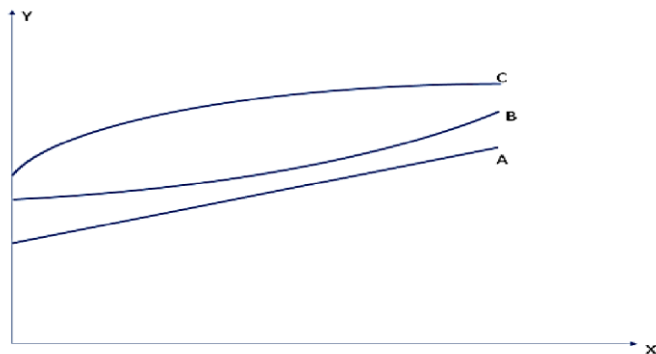
If  $A$  and  $B$  are disjoint events with  $P(A) = 0.2$  and  $P(B) = 0.5$ . Suppose  $\bar{A}$  denotes the complement of the event  $A$ . Then what is  $P(\bar{A} \cap B)$ ?

- A) 0.50  
B) 0.30  
C) 0.10  
D) 0
- 

Suppose  $\theta$  denotes the true unknown average weight of women in India. Suppose you collect two random samples, each of the same size, to estimate  $\theta$ . Suppose  $\theta_1$  and  $\theta_2$  are two estimators of  $\theta$  such that  $E[\theta_1] = E[\theta_2] = \theta$ . Further suppose that variance of  $\theta_1 <$  variance of  $\theta_2$ . Then which of the following is true?

- A)  $\theta_1$  is a better estimator of  $\theta$  compared to  $\theta_2$   
B)  $\theta_2$  is a better estimator of  $\theta$  compared to  $\theta_1$   
C) Both are equally good estimators  
D) Not enough information to say which is a better estimator
-

Please refer to the figure below. If  $Y=\ln(X)$ , then which of the following options is true?



- A) The relationship between the two variables is best depicted by graph A.  
B) The relationship between the two variables is best depicted by graph B. C) The relationship between the two variables is best depicted by graph C.  
D) It depends on whether we take negative values of  $x$  or positive values of  $x$ .
- 

Suppose a random variable  $Y$  is such that  $P[Y=c] = 1$  for some real number  $c$ . Then the variance of  $Y$  is

- A)  $c$   
B) 1  
C) 0  
D) Cannot be calculated
- 

Fatima is a scientist and works for the Weather Board of India and is involved in making daily weather forecasts for National Television. She is known to be very good at her work. Mohan is a salesman who works for a private company. Both Fatima and Mohan do not like getting wet in the rain, but they also do not like carrying an umbrella unnecessarily. Suppose whether it rains today is independent of whether it rained yesterday, and we use  $R$  to denote the event that it rains today. Using standard notation in probability theory, please read the following statements:

●**Statement 1:**  $E[R | \text{Fatima is carrying an umbrella today}] > E[R | \text{Mohan is carrying an umbrella today}]$ .

●**Statement 2:**  $E[R | \text{Fatima was carrying an umbrella yesterday}] = E[R | \text{Mohan was carrying an umbrella yesterday}]$ .

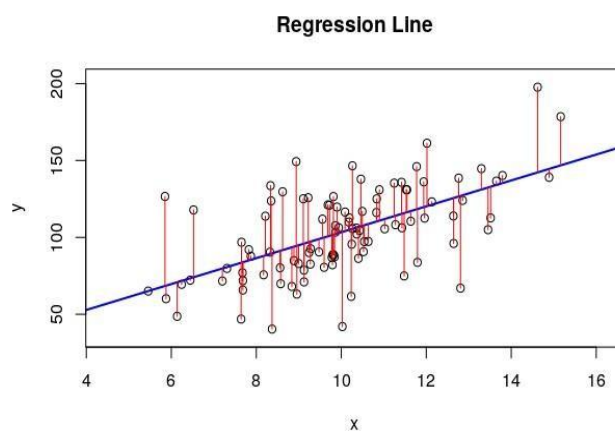
●**Statement 3:**  $E[R | \text{Fatima is carrying an umbrella today}] = E[R | \text{Fatima was carrying an umbrella yesterday}]$

●**Statement 4:**  $E[R | \text{Fatima is carrying an umbrella today}] = E[R | \text{Mohan was carrying an umbrella yesterday}]$

Which of the following is most likely to be true?

- A) Only statement 1 is true
  - B) Statements 1 and 2 are true
  - C) Statements 1, 2 and 3 are true
  - D) All statements are true
- 

In the figure below,  $x$  is an explanatory variable and  $y$  is a response variable. Based on observed data of  $x$  and  $y$ , a linear regression line has been estimated. The blue line is the estimated regression line of  $y$  on  $x$ . What are the red lines in the graph called?



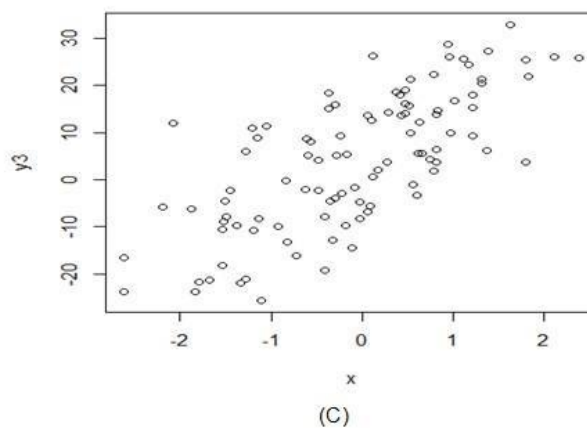
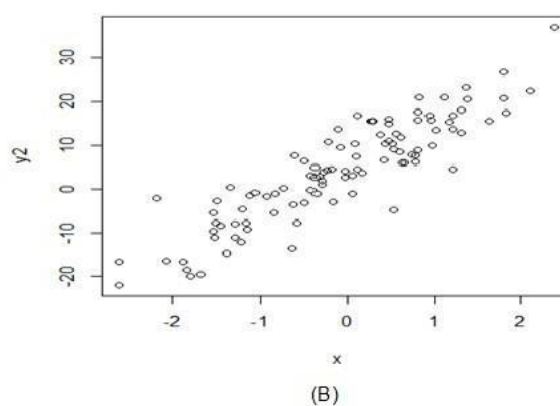
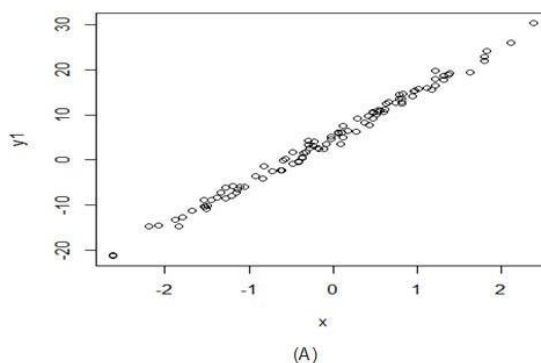
- A) Predicted Values
  - B) Intercept
  - C) Residuals
  - D) Standard error
- 

An individual claimed that the mileage ( i.e., the petrol consumption per unit distance travelled) of her car does not depend on the speed with which the car was driven. To test this claim, she drove the car at various speeds between 45 km/hour and 75 km/hour and collated the data on how many litres of petrol were being consumed at each speed level. Based on this data, she fitted a simple linear regression model and obtained the following estimated regression equation:  $\hat{Y} = 0.05 - 0.17x$  where  $Y$  denotes the mileage (kilometres per litre) and  $x$  denotes the speed level at which she drove. Based on this, she tested the hypothesis whether mileage per litre of petrol is unaffected by the speed with which she drove and got a p-value of 0.001. Which of the following statements is FALSE?

- A) At a 5% level of significance, car speeds have no effect on the mileage.
- B) At a 5% level of significance, car speeds have an effect on mileage.
- C) As the speed increases by 5 units, mileage decreases by 0.85 units on average.
- D) At a 1% level of significance, car speeds have an effect on mileage.

---

Consider the three scatter plots A, B & C.



Suppose you are called upon as an economist to make an accurate prediction about  $Y$ , for given a value of  $X$  and your salary would be based on how good your prediction turns out to be. Three scatterplots A, B and C are given above. Which of the three scatter plots would you prefer to be the raw data that depicts the relationship between  $X$  and  $Y$  based on which you can predict:

- A) I would be indifferent as the method used for prediction remains the same irrespective of the data.
- B) I would prefer the scatterplot A (between  $x$  and  $y_1$ ) as the raw data.
- C) I would prefer the scatterplot B (between  $x$  and  $y_2$ ) as the raw data. D) I would prefer the scatterplot C (between  $x$  and  $y_3$ ) as the raw data.

---

Suppose you have the following two scenarios related to hypothesis testing:

Scenario 1:

Null: Mean height of boys in the class is 5 feet 6 inches

Alternative: Mean height of the boys in the class is 5 feet 7 inches

Scenario 2:

Null: Mean height of boys in the class is 5 feet 6 inches

Alternative: Mean height of the boys in the class is 5 feet 8 inches

Keeping the level of significance at 15 percent, which of the following is true:

- A) Both scenarios are invalid as the level of significance is always fixed at 1 percent or 5 percent.
  - B) In scenario 1, the probability of rejecting the null when the null is true is higher than in scenario 2.
  - C) In scenario 1, probability of rejecting the null when the null is true is lower than in scenario 2.
  - D) In scenario 1, the probability of not rejecting the null when the null is false is lower than in scenario 2.
- 

Why is the decade 1921-31 referred to as the year of the great divide in India?

- A) Gandhi launched his Satyagraha movement and mobilized masses all over the country.
  - B) The first Indian steel industry was developed by Tata's.
  - C) India's dependency on British imports started declining.
  - D) Population growth rate went up significantly.
- 

A special economic zone (SEZ) is an area in a country that is subject to different economic regulations than other regions within the same country. What was the main reason for implementing the SEZ act of 2005?

- A) To develop backwards regions.
  - B) To create employment.
  - C) To attract Foreign Direct Investment.
  - D) To develop export capabilities of the country.
- 

What were the primary aims of the fiscal responsibility and budget management act of 2003?

- A) To control the exchange rate.
  - B) To attract more Foreign Direct Investment in the India economy.
  - C) To make the central government more prudent in its budgetary decision.
  - D) To give more autonomy to the RBI to control the Money Supply.
- 

Which of the following statements is NOT TRUE about the Mahatma Gandhi National Rural Guarantee Act 2005?

- A) If the government fails to provide employment, it must provide unemployment allowances to those people
  - B) MGNREGA aims to create durable assets (such as roads, canals, ponds and wells).
  - C) MGNREGA is applicable to all regions and citizens of India.
  - D) It is the largest social security programme in the world.
- 

In 1979 independent India experienced the lowest growth rate in its history? What was the main reason for the fall in growth rate?

- A) OPEC price rise
  - B) Industrial stagnation
  - C) Monsoon Failure
  - D) High Fiscal Deficit
- 

The rate of profit in Marxian analysis is calculated as:

- A) Ratio of surplus value to the total capital
  - B) Ratio of surplus value to the variable capital
  - C) Ratio of surplus value to the constant capital
  - D) Ratio of surplus value to the organic composition of capital
- 

Which of the following is **NOT TRUE** for caste-based inequality in Indian labour market?

- A) There exists a wage gap between different castes groups.
- B) There continues to exist segregation across occupations between different caste groups.
- C) India has a policy for caste-based reservations in the informal sector
- D) The female labour force participation rate is higher among scheduled castes and scheduled tribes than among the general caste.

---

The labour force participation rate is measured as

- A) The proportion of employed persons out of the total working age population.
  - B) The proportion of employed persons plus those voluntarily unemployed out of the total population.
  - C) The proportion of employed persons plus those unemployed who are seeking work out of the total working age population.
  - D) The proportion of employed persons plus those willing to work but not seeking work out of the total population.
- 

Which of these is **NOT TRUE** for Indian agriculture over a period of roughly the past three decades since 1990?

- A) The agricultural land area per capita is witnessing a falling trend.
  - B) The employment in agriculture as a percentage of total employment is witnessing a falling trend.
  - C) The share of land area used for agriculture, measured as a percentage of total land area, has remained roughly constant.
  - D) Agricultural value added has been witnessing a falling trend.
- 

Which of the following statements is **NOT** correct based on the graph below?



- A) The female labour force participation rate in India is lower than that in the state of Kerala.
- B) The difference in the male and female-labour force participation rate is lowest in Andhra Pradesh.
- C) The difference in the male and female-labour force participation rate is highest in Bihar.
- D) The female labour force participation rate is highest in Andhra Pradesh.
- 

Consider a null hypothesis the population mean height is 5 feet. Test A has a significance (alpha) level of 0.05, and another test B has a significance level of 0.01. The power of the two tests has the following characteristic:

- a) Test A has greater power than test B.
- b) To compare the relative power of tests A and B, we need to know the alternative hypothesis in each case.
- c) Test B has greater power than test A.
- d) The power of the tests is independent of their significance levels.
- 

Suppose  $X$  is a continuous random variable, with mean  $E(X)$  and variance  $V(X)$ . Which of the following statements is true.

- a) The uncertainty in  $X$  is fully characterized by its probability density function.

- b) The uncertainty in  $X$  is fully characterized by  $E(X)$  and  $V(X)$ .
  - c) The uncertainty in  $X$  is fully characterized by  $V(X)$ .
  - d) The uncertainty in  $X$  cannot be fully characterized because it is continuous.
- 

Suppose  $X$  is a uniform random variable on the interval 5 to 7. Let  $f(x)$  be its probability density function. Which of the following statements is true:

- a)  $f(x)=6$  for all  $x$  in  $(5,7)$  and is 0 otherwise.
  - b)  $f(x)=1$  for all  $x$  in  $(5,7)$  and is 0 otherwise.
  - c)  $f(x)=2$  for all  $x$  in  $(5,7)$  and is 0 otherwise.
  - d)  $f(x)=0.5$  for all  $x$  in  $(5,7)$  and is 0 otherwise.
- 

Suppose the 95% confidence interval for population mean height of Indian women is  $(5.2, 6.0)$ . What is your best guess among the options below about the 99% confidence interval for the same population mean.

- a) It is  $(5, 6.2)$ .
  - b) It is  $[5.4, 5.8]$ .
  - c) It is  $(5.4, 5.8)$ .
  - d) It can be either  $(5.4, 5.8)$  or  $[5.4, 5.8]$  as both are equivalent.
- 

The heights of a certain population of males are normally distributed with mean 68 inches and standard deviation 7 inches. The proportion of the population whose height is greater than 61 inches is approximately:

- a) 84%
  - b) 99%
  - c) 68%
  - d) 16%
- 

Samples of size 64 are selected from a population with mean 20 and standard deviation 16. The standard error of the sampling distribution of sample means is

- a) 4

- b) 2
  - c) 0.25
  - d) 0.50
- 

Thirty students take two courses - Intermediate Microeconomics one semester and Intermediate Macroeconomics in the following semester. Their overall course grades in percentage are listed below for both courses. Which of the following statistical procedures would be most appropriate to test the claim that the student's overall course grades are the same in both courses? Assume that any necessary normality requirements hold.

Student	1	2	3	4	5
Intermediate Microeconomics	70%	62.6%	89%	91.3%	58.9%
Intermediate Macroeconomics	65.5%	61.0%	83.2%	93.0%	44.8%

- a) Two-tailed two-sample paired/dependent t-test of means
  - b) Two-tailed two-sample independent t-test of means
  - c) Two-tailed two-sample independent z-test of means
  - d) One-tailed two-sample z-test of proportions
- 

Suppose an insurance company divides its population into two classes - those who are prone to have accidents and those who are not. The data shows that there is a 10% probability that an accident-prone person will have an accident in a 1-year period. The probability for all others is 5%. If the probability of a new policyholder being accident-prone is 20%, find the probability that a new policyholder will have an accident in the first year:

- a) 10%
  - b) 33%
  - c) 40%
  - d) 6%
- 

For any linear regression model where Y is the dependent variable one can derive the expression as given here. Each term in the equation has its usual interpretation.  $y_i$  is the value of the  $i^{th}$  observation of y in the data.  $\hat{y}_i$  is the value of the  $i^{th}$  observation as predicted by the regression model and  $\bar{y}$  is the mean of n observations of the dependent variable y.

$$\sum_{i=1}^n (y_i - \bar{y})^2 = \sum_{i=1}^n (\hat{y}_i - \bar{y})^2 + \sum_{i=1}^n (y_i - \hat{y}_i)^2$$

$$A = B + C$$

Which of the options in the multiple choice is correct.

- a) A high ratio of B/A indicates that the model explains a lot of variability in y.
- b) A high ratio of C/A indicates that the model explains a lot of variability in y.
- c) A low ratio of B/A indicates that the model explains a lot of variability in y.
- d) Variability in y cannot be explained by this equation

Figure 1 shows the results of a survey comparing the change in income from before the pandemic to after the pandemic across income groups. The y-axis represents the income category of the households and the x-axis represents the percentage of households. INR in the figure refers to

Indian rupees. "Same" in Figure 2, indicates that the households have said that there was no change in income before and after the pandemic while "Decreased" in figure indicates that the households have said their household incomes decreased post pandemic.

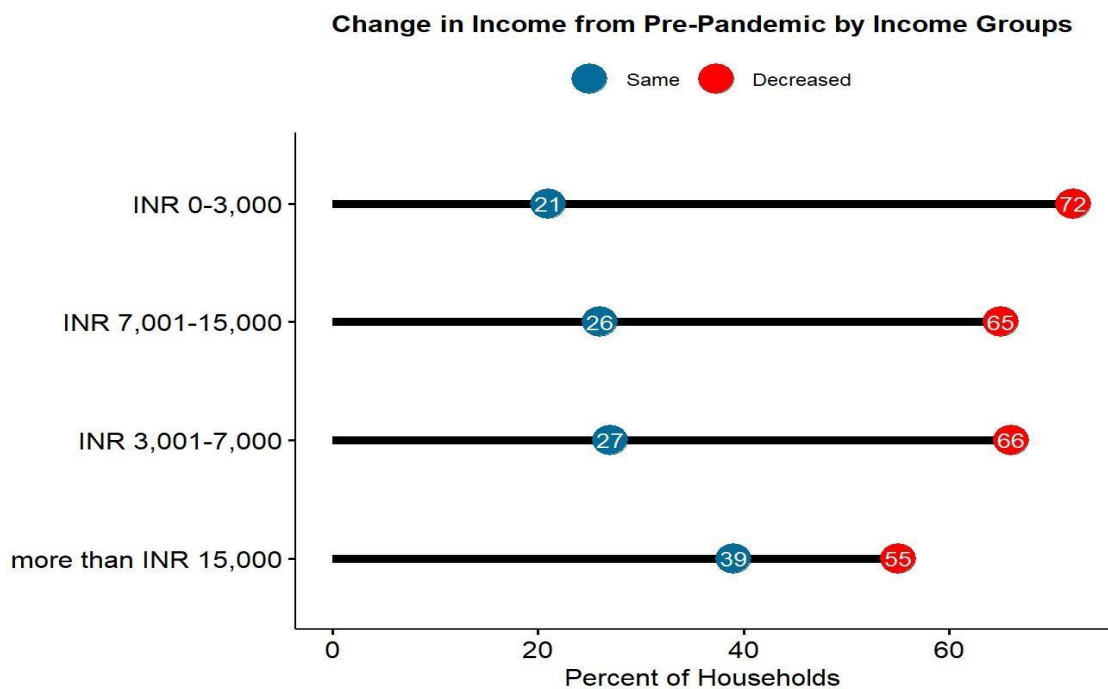


Figure 1: Change in income-by-income groups

Assuming that incomes either remained the same, decreased or increased post-pandemic compared to pre-pandemic, which among the following options is correct.

- a) The income group more than INR 15,000 had the most percentage of households reporting an increase in income.

- b) The income group INR 7,001 - 15,000 had the most percentage of households reporting an increase in income.
  - c) The income group more than INR 15,000 had the least percentage of households reporting an increase in income.
  - d) The income group INR 3,001 - 7,000 had the most percentage of households reporting an increase in income.
- 

Consider an open economy ISLM model. According to Mundell-Fleming, which of the following cannot be effective simultaneously?

- a) free capital flow, autonomous monetary policy, flexible exchange rate
  - b) free capital flow, autonomous monetary policy, fixed exchange rate
  - c) free capital flow, fiscal policy, fixed exchange rate
  - d) monetary policy and fiscal policy under closed economy
- 

Consider a closed economy where consumption propensity is 0.5 and government budget is always balanced. If government expenditure rises by 1 unit, by how much will output rise under balanced budget multiplier?

- a) 0.5
  - b) 1
  - c) 2
  - d) 0
- 

The inflation rate of an economy rises. If the central bank wants to reduce inflation rate, which of the following policies will it implement?

- a) Reduce interest rate
  - b) Increase interest rate
  - c) Depreciate nominal exchange rate
  - d) Sell government bonds
- 

Consider 2 economies, A and B, which have equal consumption and import propensities. Government expenditure rises in country A by Rs. 100, while its exports remain unchanged. Exports rise in country B by Rs. 100, while its government expenditures remains same. If trade balance is the difference between export and import, which of the following proposition is correct?

- a) Trade balance improves in Country A and B by equal amount
  - b) Trade balance deteriorates in Country A and B by equal amount
  - c) Trade balance improves in A, deteriorates in B
  - d) Trade balance improves in B, deteriorates in A
- 

Which of the following statement is wrong?

- a) Philips curve will shift upward in the case of cost-push inflation
  - b) Short Run Philips curve is vertical under adaptive expectation
  - c) Philips Curve is vertical under rational expectation
  - d) Philips Curve is unstable under adaptive expectation
- 

Consider a simple Keynesian model. The consumption function of an economy is given by  $C = 50 + 0.5Y$ . Investment expenditure,  $I = 100$ . Output is given by  $Y = C + I$ . Now suppose investment expenditure rises by 20 units. Which of the following statement is correct?

- a) Equilibrium output rises from 300 to 340
  - b) Equilibrium output rises from 300 to 320
  - c) Equilibrium output rises from 150 to 190
  - d) Equilibrium output rises from 150 to 170
- 

If everyone prefers holding cash to holding bond, this situation would be known as?

- a) Widow's curse
  - b) Liquidity trap
  - c) Paradox of thrift
  - d) None of the above
- 

If marginal propensity to consume goes up in the economy, then

- a) Level of IS curve will change
- b) Slope of IS curve will change
- c) Level of LM curve will change

d) Slope of LM curve will change

---

Suppose, the LM curve is positively sloped and the IS curve is negatively sloped. If money supply is increased by the monetary authority, then in the IS-LM framework it will

- a) Reduce investment
  - b) Increase investment
  - c) Have no effect on investment
  - d) Can't say
- 

Which of the following is not a monetary policy instrument

- a) Repo rate
  - b) Cash Reserve Ratio
  - c) Reverse repo rate
  - d) Capital adequacy ratio
- 

The figure below shows the demand curve for candies. Which of the following statements is true?

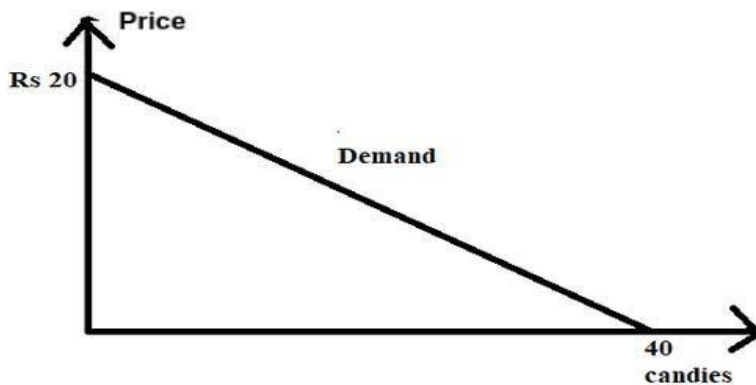


Figure X. Figure for question (X)

- a) The inverse demand function is given by the equation  $P = 40 - 2Q$
  - b) The marginal revenue can be expressed as a function of quantity as follows:  $MR = 20Q - 0.5Q^2$
  - c) The marginal revenue can be expressed as a function of quantity as follows:  $MR = 20 - Q$
  - d) Without more information, neither the inverse demand function nor the marginal revenue function can be determined.
- 

The marginal rate of substitution of good  $y$  with respect to good  $x$  is given by  $mrs(x,y) = \frac{\text{Marginal utility of } x}{\text{Marginal utility of } y}$ . Consider the Cobb-Douglas utility function  $u(x,y) = x^{0.2}y^{0.8}$ . Select which of the following statements is the correct interpretation of the MRS.

- a) The consumer will be indifferent if 4 units of good  $y$  are exchanged with 1 unit of good  $x$
  - b) The consumer will be indifferent if 1 unit of good  $y$  are exchanged with 4 units of good  $x$
  - c) The consumer will be indifferent if  $y/4x$  units of good  $y$  are exchanged with 1 unit of good  $x$
  - d) The consumer will be indifferent if 1 units of good  $y$  are exchanged with  $y/4x$  unit of good  $x$
- 

Let the preference of a consumer over tea and biscuits be given by  $u(t,b)=\min\{2t,b\}$ , where  $t$  is the number of cups of tea, and  $b$  is the number of biscuits. The price of tea is Rs 10 per cup and the price of one biscuit is Rs 2. the person has a total of Rs 28 to spend. What is the amount of tea and biscuits that the consumer will buy to maximise their utility?

- a) 1 cup of Tea and 2 Biscuits.
  - b) 2 cups of Tea and 1 Biscuit.
  - c) 2 cups of Tea and 4 Biscuits.
  - d) 4 cups of Tea and 2 Biscuits.
- 

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.
- 

Consider the following graph depicting a monopolist's marginal revenue (MR), marginal cost (MC) and the market demand curve. Which of the following statements is true?

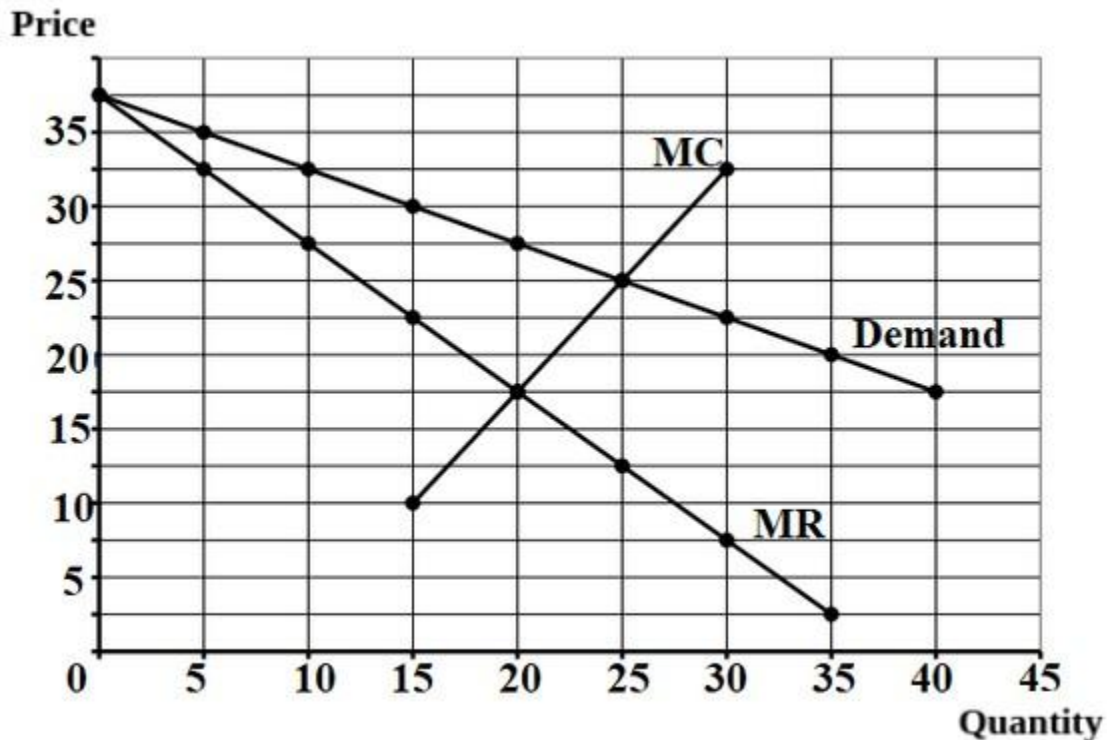


Figure X. Figure for question (X)

- The monopolist will charge 17.5 rupees per unit and sell 20 units.
- The monopolist will charge 25 rupees per unit and sell 12.5 units.
- The monopolist will charge 25 rupees per unit and sell 25 units.
- The monopolist will charge 27.5 rupees per unit and sell 20 units.

Which of the following decisions will increase the economic profit of a firm with increasing marginal cost operating in a perfectly competitive market?

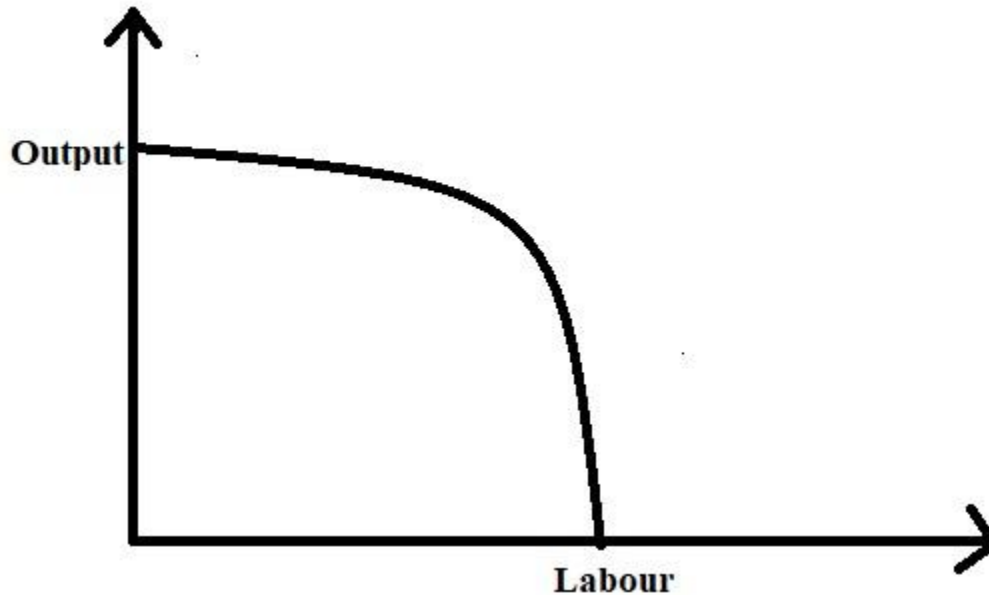
- The firm decreases output if the price of a good exceeds its marginal cost of production.
- The firm increases output if the price of a good is less than its marginal cost of production.
- The firm decreases output if the price of a good is less than its marginal cost of production.
- The firm charges a higher price if the existing price is equal to its marginal cost of production.

It is believed that an educated citizen has positive externalities for other citizens. The government should provide scholarships and subsidies for college education, because:

- The marginal private cost is more than the marginal social cost, hence college education will be under-supplied in competitive equilibrium
- 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
- 

Which of the following statements about the figure below is true?



- a) The graph above shows that hiring more labour increases output.
- b) The graph above shows that an increase in the level of an input leads to a decrease in the quantity produced.
- c) The graph above is known as the production possibilities frontier as it shows the possible levels of output for different levels of input (labour).
- d) The graph above is an accurate representation of how labour and output are related in the real world.
- 

A firm that has a monopoly over good X observes that when it decreases the price of the good from Rs 100 to Rs 90, its total revenue decreases from Rs 1,00,000 to Rs 99,000. What is the elasticity of demand of good X with respect to its price?

- a) 10
- b) 5
- c) 1
- d) 1/10
- 

An individual likes both income and leisure and can decide how much time they want to work, and how much time they want to keep aside for leisure. If the exogenously given hourly wage increases (while everything else remains the same), which of the following statements must be true?

- a) One can now earn the same amount of money by working fewer hours, therefore for any rational individual, an increase in hourly wage will always result in fewer hours of work.
  - b) One can now earn more money by working the same number of hours, therefore for any rational individual, an increase in hourly wage will not change the hours of work.
  - c) For any individual, every extra hour of leisure is now costlier, therefore an increase in hourly wage will always result in more hours of work.
  - d) We need more information to determine whether working hours will actually increase or decrease.
- 

If the government increases GST on televisions but the price of televisions does not change as a result of the tax increase, it implies that

- a) People are either not buying TV or they are not paying GST.
- b) Producers are selling only those televisions that they have produced before the GST was implemented.
- c) The incidence of the tax increase has fallen entirely on the consumer
- d) The incidence of the tax increase has fallen entirely on the producer

The cost of generating solar and wind energy is currently higher than the cost of producing traditional fossil fuels. However, due to changes in the production technology, the cost of these products will soon be equal. When this happens, holding everything else constant, one can expect:

- a) A rise in solar and wind energy production as they will now be substitutes for the lowest-cost fossil fuels.
- b) A decline in solar and wind energy production as they will now be compliments for the lowest-cost fossil fuels
- c) No change in solar and wind energy production
- d) A rise in solar and wind energy production and fossil fuel production

For the demand and supply functions,  $Q_d = 10 - P$ ,  $Q_s = 3P - 2$ . The equilibrium  $(P_0, Q_0)$  is:

- a) (6,4)
- b) (5,5)
- c) (7,3)
- d) (3,7)

Union leaders are in a worse position to bargain for higher wages if the demand for labour is:

- a) Elastic

- b) Inelastic
- c) Very low
- d) Constant

If a firm sells its output on a market that is characterized by few sellers and many buyers, then the firm is:

- a) a monopolist
- b) an oligopolist
- c) a perfect competitor
- d) a monopsonist

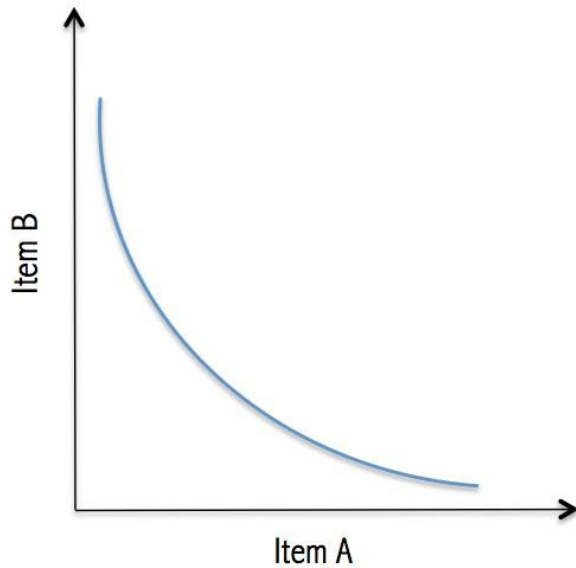
Which of these is an example of an adverse selection problem?

- a) A motorbike insurance market, where insurers do not know how carefully the insured people drive
- b) A health insurance market, where insurers do not know whether the applicants are heavy smokers
- c) In person sales of medicine where consumers can tell whether the contents are as claimed by sellers.
- d) A firm that employs workers and can observe how hard they are working.

A student living in a hostel plays loud music at 1.35 am in the night. Which of the following statements is true?

- a) There is no externality. In this example, the person playing loud music (producer) and the person listening to the music (consumer) are the same.
- b) This is positive externality. Others who live in the same hostel are able to enjoy music without putting in the effort to play music.
- c) This is negative externality. The loud music may disturb those who are sleeping or trying to sleep.
- d) The concept of externality is not applicable here since there is no market in this situation.

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 A to item B.
- c) This exhibits that items A and B are perfect complements.
- d) This exhibits that items A and B are perfect substitutes.

Mallika likes playing hockey more than playing cricket. Bala, on the other hand, prefers playing cricket to playing hockey. However, both of them also value spending time together rather than spending the afternoon apart. The following table represents the enjoyment levels (pay-offs) of Mallika and Bala, depending on their choice of activity (the first number is Mallika's enjoyment level while the second number is Bala's).

	Bala		
	Cricket	Hockey	
Mallika	Cricket	3,5	1,1
	Hockey	4,3	6,2

Based on the information in the table, what is the Nash Equilibrium?

- a) The Nash equilibrium is (hockey, cricket) where Mallika chooses hockey and Bala chooses cricket.
- b) The Nash equilibrium is (cricket, cricket) where both players choose cricket.
- c) The Nash equilibrium is (hockey, hockey) where both players choose hockey.
- d) The Nash equilibrium is (cricket, hockey) where Mallika chooses cricket and Bala chooses hockey.

In a competitive market, the adoption of a price intervention such as a tariff will lead to:

- a) A deadweight loss
- b) An increase in consumer surplus
- c) Greater overall efficiency
- d) A lower government revenue

The table below gives some macroeconomic aggregate data for a country. Calculate the aggregate demand in this country.

Consumption (C)	40
Investment (I)	15
Government Spending (G)	30
Exports (X)	15
Imports (M)	10

- a) 110
- b) 100
- c) 90
- d) 60

Assume that the consumption function is given by  $C=10 +.8Y$ , where Y is the income. Investment is 15, Government Spending is 30, Exports are 15 and Imports are 10. What is the equilibrium income?

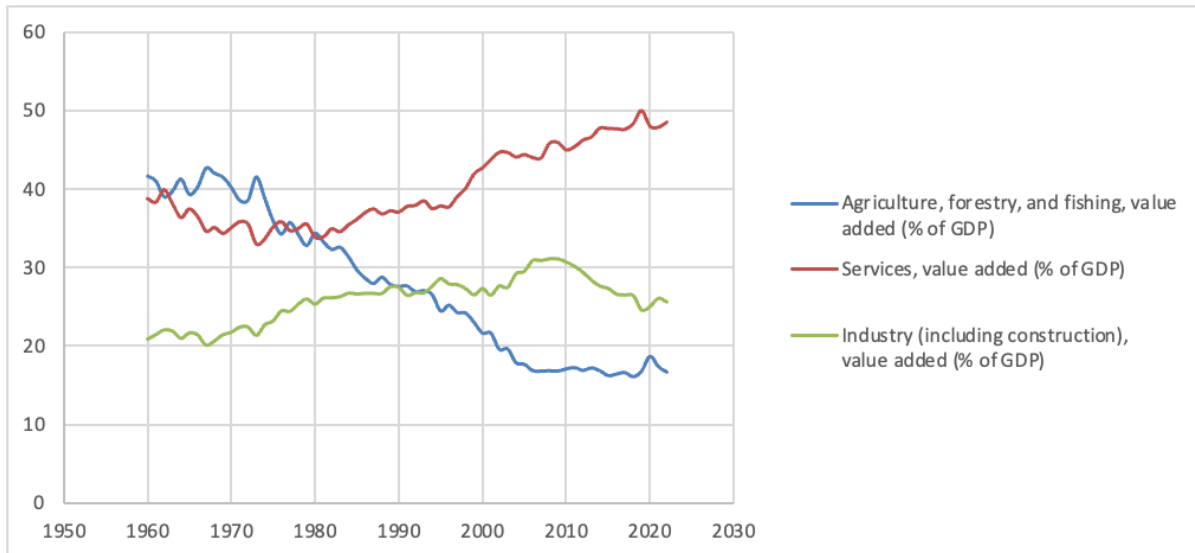
- a) 250
- b) 300
- c) 150
- d) 90

Which of the following statements about the measurement of GDP is correct?

- a) The value added of government production is computed using the price at which public goods are sold at in the market.

- b) Government production is not included in GDP.
- c) Information about exports but not imports is necessary to calculate GDP.
- d) GDP can be measured as the sum of all income received from domestic production within a given period.

This graph shows the sectoral composition of GDP for the Indian economy.



From the graph we can conclude:

- a) Manufacturing industries in the Indian economy have always contributed more to the GDP than the agricultural sector.
- b) The Indian economy has not experienced structural change in the sectoral composition of GDP.
- c) The Indian economy has seen a decline in the relative contribution of the agricultural sector and an increase in the relative contribution of the service sector.
- d) Most Indians are dependent upon the service sector for their livelihoods.

What is the value of the multiplier in an economy with a Marginal Propensity to Consume (MPC) of 0.8?

- a) 2
- b) 5
- c) 0.75
- d) 1.33

In India economic growth remains weakly connected to job creation. Since the 1980s, non-farm output has consistently grown much faster than non-farm employment resulting in:

- a) A steady fall in the employment elasticity (output growth divided by employment growth)

- b) a steady increase in the employment elasticity (output growth divided by employment growth)
- c) No change in employment elasticity
- d) No change in total output

A Balance of Payments deficit means

- a) A country imports more goods than it exports.
- b) A country exports more goods than it imports.
- c) The country lends capital to the rest of the world.
- d) The currency will appreciate.

If you were a government official and the economy was going through a period of high unemployment, what policy options would you adopt to try to stimulate aggregate demand?

- a) Contractionary monetary policy
- b) Tighter regulation of financial intermediaries
- c) Contractionary fiscal policy
- d) Expansionary fiscal policy

Which of the following would increase GDP?

- a) An increase in imports
- b) An increase in remittances paid to domestic residents by relatives living abroad.
- c) An increase in government spending
- d) A decline in exports

Inflation is most likely to be seen when.

- a) There is a high level of unemployment.
- b) Productivity is rising.
- c) Import costs are falling.
- d) There is a large increase in domestic expenditure.

₹100 invested for 5 years at 6% per annum interest compounded annually will grow to: (\* denotes multiplication)

- a) 1065
- b)  $100[1 + (0.06) * (5)]$
- c)  $100 * [(1.06)]^5$
- d)  $100 * (1 + 0.06) * 5$

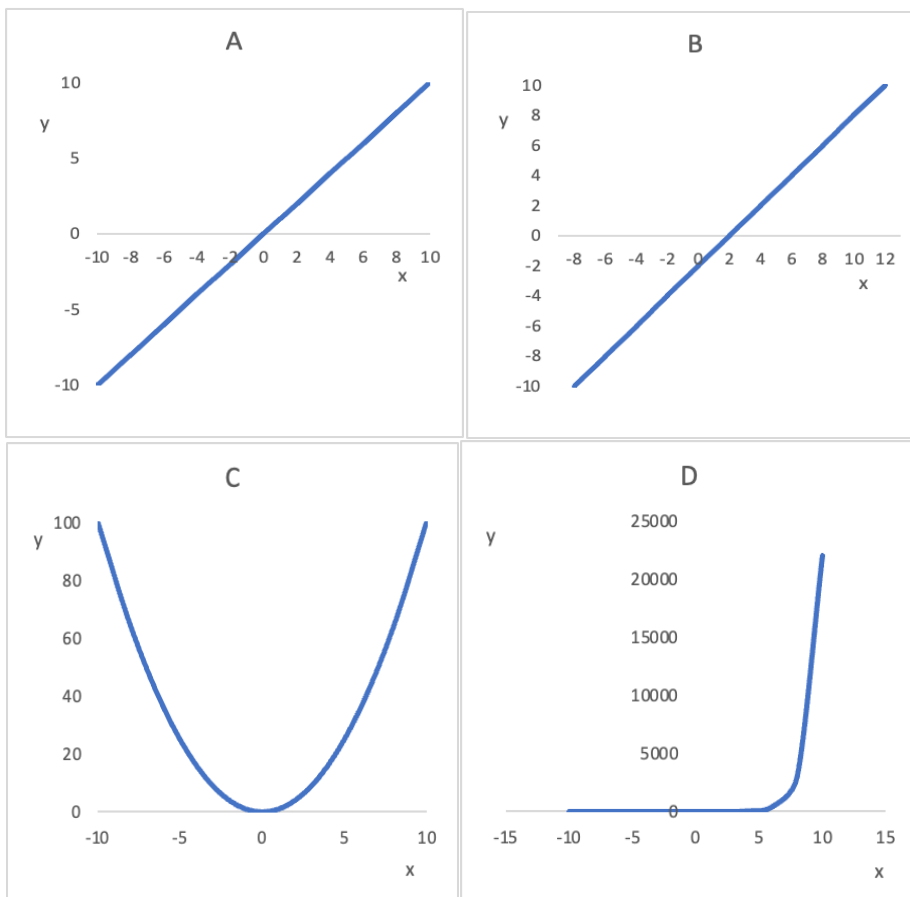
When an unbiased die with six faces is rolled, the probability of getting an even number is equal to:

- a)  $1/3$
- b) Probability of getting an odd number
- c) There is not enough information to answer the question.
- d)  $1/6$

Assume nominal GDP for India was ₹235 lakh crores in 2021. Using the price index of 108 calculate the real GDP for India in 2021.

- a) ₹217.6 lakh crores
- b) ₹2.18 lakh crores
- c) ₹2.17 lakh crores
- d) ₹0.46 lakh crores

What are the functions that go with the graphs below?



- a) A:  $f(x)=x$ , B:  $f(x)=|x|$ , C:  $f(x)=ex$ , D:  $f(x)=x+2$
- b) A:  $f(x)=y$ , B:  $f(x)=x+2$ , C:  $f(x)=\log x$ , D:  $f(x)=ex$
- c) A:  $f(x)=x$ , B:  $f(x)=x+2$ , C:  $f(x)=x^2$ , D:  $f(x)=ex$
- d) A:  $f(x)=x+2$ , B:  $f(x)=y$ , C:  $f(x)=|x|$ , D:  $f(x)=\log x$

The graph below shows monthly earnings of different types of workers in India.

## Monthly earnings of self-employed, regular and casual wage



Source: PLFS 2018-19

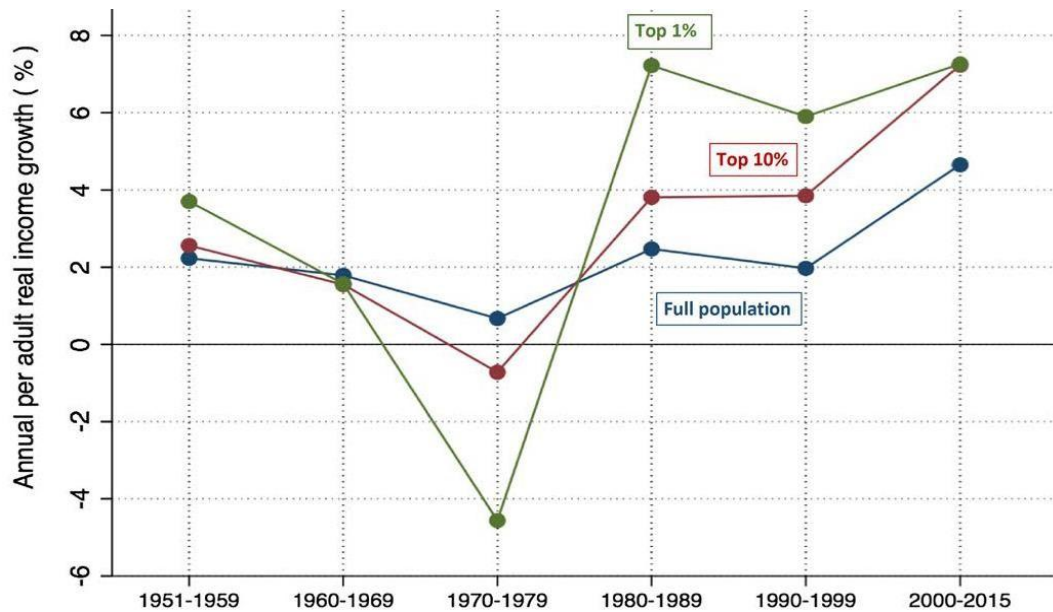
From the data on the graph, we can conclude that:

- Every regular wage worker earns more than self-employed workers.
- On average regular wage workers almost earn three times the amount casual wage workers earn per month
- The median self-employed worker earns more than any casual wage worker
- There are more regular wage workers than casual wage workers.

What does a histogram show?

- A histogram is a graph in which values of observations are plotted on the horizontal axis, and their density is plotted on the vertical axis.
- A histogram is a graph in which levels of the independent variable are plotted on the horizontal axis, and the mean of observations is plotted on the vertical axis.
- A histogram is a graph in which values of observations are plotted on the horizontal axis, and the frequency with which each value occurs in the data set is plotted on the vertical axis.
- A histogram is a graph in which values of one variable are plotted against values of a different variable.

The graph below shows the National Income Growth in India between 1951 and 2015



Source: Chancel and Piketty (2019), 'Indian Income Inequality, 1922-2015: From British Raj to Billionaire Raj', in Review of Income and Wealth Vol 65(S1).

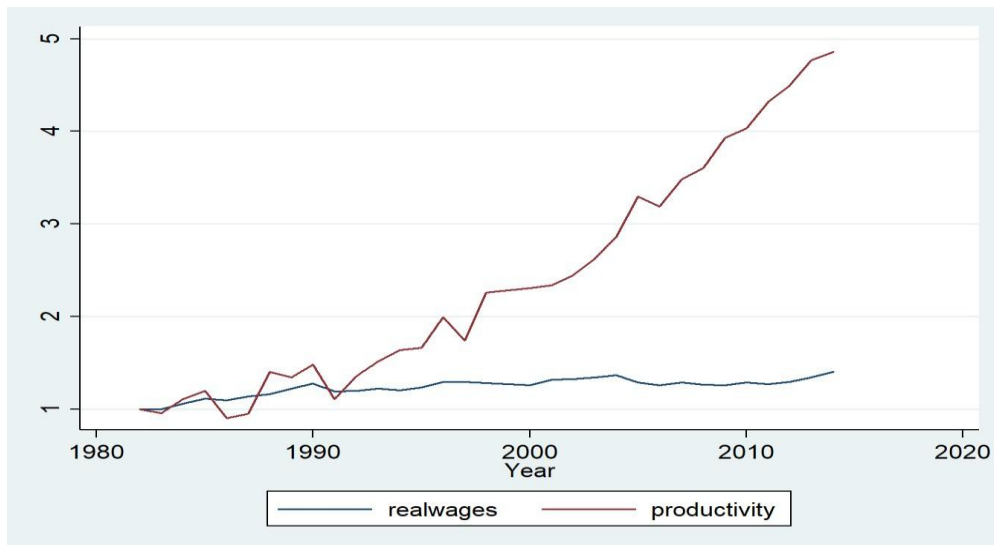
From the graph we can conclude the following:

- In general, the Indian population experienced a substantially lower rate of average income growth as compared to the top 10% group after the 1980s.
- Incomes grew every year for all groups.
- The bottom 10% group experienced a substantially higher rate of average income growth as compared to the top 10% group.
- The top 1% group experienced a substantially lower rate of average income growth as compared to the bottom 1% group after 1980.

Some economists have studied the relationship between adult height and the distribution of income across a population. They have found that adult height is an increasing but concave function of income. This implies:

- On average richer people are also taller.
- On average richer women will be taller than poorer men
- Median heights will be higher than average heights.
- A relatively tall person must be among the rich in society.

This graph shows real wage and productivity growth in India from 1982 to 2012.

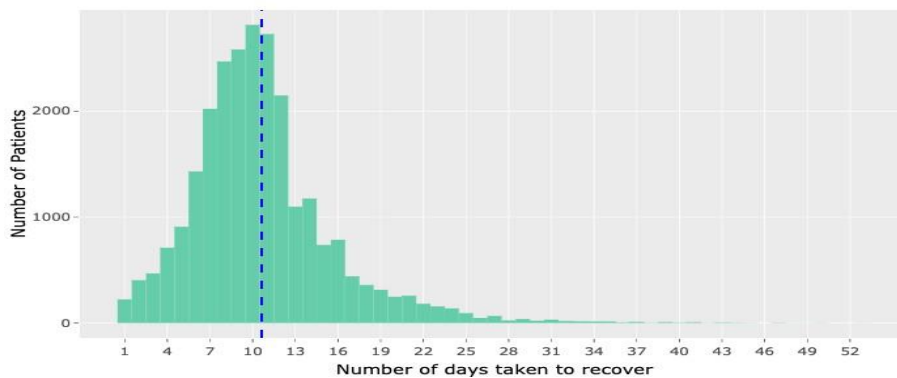


From this data we can conclude that:

- Real wages have increased in proportion to increases in productivity.
- Productivity increases have been lower than real wage growth.
- Real wage growth has been relatively stagnant since 1990 while productivity growth has risen.
- Real wage growth and productivity have been stagnant.

The graph below shows the number of days taken by patients to recover from COVID:

Distribution of number of days taken by patients to recover



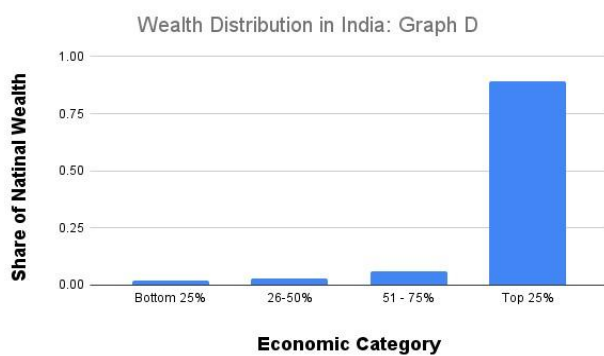
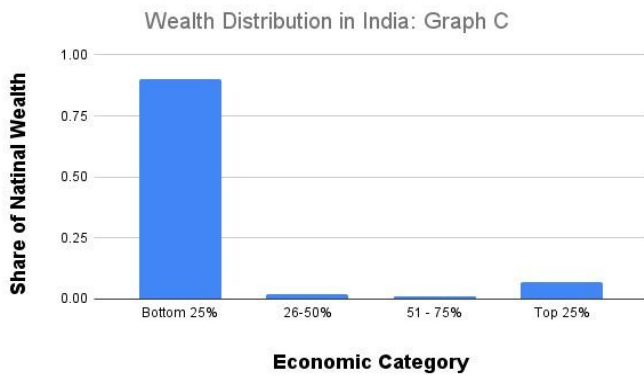
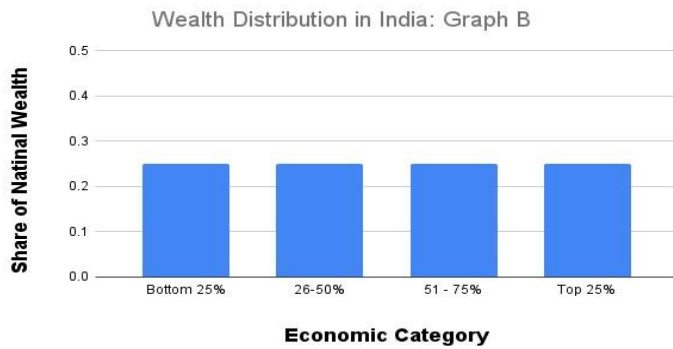
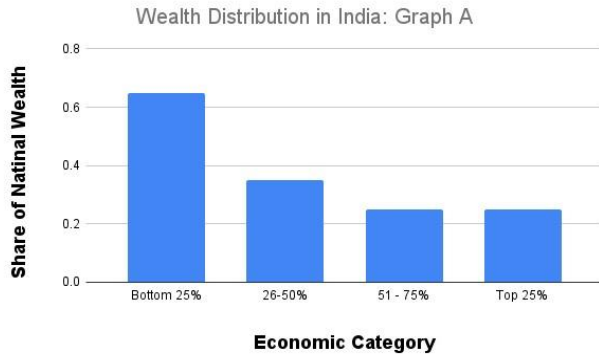
From this graph we can conclude that:

- Most patients took more than 13 days to recover.
- All patients recovered within 34 days.
- The average time of recovery is slightly higher than the median days of recovery.
- The average time of recovery is slightly less than the median days of recovery.

Data on crime against women in India is:

- a) Under-reported, but not under-recorded. This is because women are not encouraged enough to report crimes against them, but when they file a complaint, the police are legally bound to register the complaint.
- b) Under-recorded, but not under-reported. This is because all the crimes against women are reported, but not all of them are registered by the police.
- c) Under-reported as well as under-recorded. This is because women are neither encouraged to report crimes against them, nor do the police register all the reported crimes against women.
- d) None of the above

The following graphs show four possible distributions of wealth in India. That is, the share of total wealth held by the rich and the poor.



Which of the above graphs provides a relatively accurate description of Indian reality?

- a) Graph A
- b) Graph B
- c) Graph C

d) Graph D

“There is no doubt, in my opinion, that unless you change your social order you can achieve little by way of progress. You cannot mobilize the community either for defence or for offence. You cannot build anything on the foundations of caste. You cannot build up a nation, you cannot build up morality. Anything that you will build on the foundations of caste will crack and will never be a whole.”

— B.R. Ambedkar, Annihilation of Caste.

Based on the above passage, which of the following is true?

- a) Caste is the foundation of Indian society.
- b) To remove caste as a system, one needs economic development.
- c) A nation built in the presence of the caste system will always be fractured.
- d) In the presence of the caste system, it is impossible to mobilise people against the caste system. The India Lights platform shows light output at night for 20 years for 600,000 villages across India. For a specific year, it provides a map where each point represents the light output of a specific village at a given point in time. This data is used to provide an estimate of economic activity. A researcher observes that region A has more lights than region B. Which of the following statements is certainly False?

- a) Region A is richer than region B.
- b) Region A is an urban area.
- c) Region A has a more effective government.
- d) Region A has less crime than region B.

The India Working Survey shows that the lower level of women’s labour force participation is partially explained by how questions are asked and to whom they are asked. Labour force surveys usually gather information from one respondent in the household. Which of the following may help capture women’s workforce participation better?

- a) One should interview the head of the household.
- b) If there is a mother-in-law and daughter-in-law present in the household, one should interview the mother-in-law.
- c) If there is a mother-in-law and daughter-in-law present in the household, one should interview the daughter in law.
- d) One should randomly pick a person to interview, since otherwise the answers will be biased.

If the government increases GST on tea but the price of tea does not change as a result of the tax increase, it implies that

- a) People who drink tea in India do not pay taxes.
- b) The incidence of the tax increase has fallen entirely on the consumer.
- c) Tea producers have shifted to producing coffee.
- d) The incidence of the tax increase has fallen entirely on the producer

Consider the market for two goods that are perfect complements – sugar and milk. If the price of milk increases what will happen to the demand curve of sugar?

- a) Demand for sugar will shift to the right, because people will substitute sugar with milk.
- b) Demand for sugar will shift to the left, because people will buy less milk and therefore less sugar.
- c) Demand for sugar will be the same, but the demand curve will become non-linear, because different consumers complement sugar and milk in different proportions.
- d) Demand for sugar will be the same and it will remain linear, but the slope of the demand curve will change, because the relative price ratio of sugar and milk has changed.

For the demand and supply functions,  $Q_d = 5 - P$ ,  $Q_s = 2P - 1$ , the

equilibrium  $(P_0, Q_0)$  is:

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

Union leaders are in a better position to bargain for higher wages if the demand for labour is:

- a) Elastic
- b) Inelastic
- c) Very low
- d) Constant

A market, where there is only one seller is known as, a)

Monopolistic competition

- b) Oligopoly
- c) Monopoly
- d) Monopsony

There are 10 used computers on the market, of which 6 are good quality and worth ₹9000 to buyers and the others are bad quality, worth ₹0. There are many potential buyers who do not know the quality of each computer, but they know the proportion of good quality computers, and are willing to pay the average value. All sellers are willing to accept a price at least half the true value of their motorbike. This is an example of:

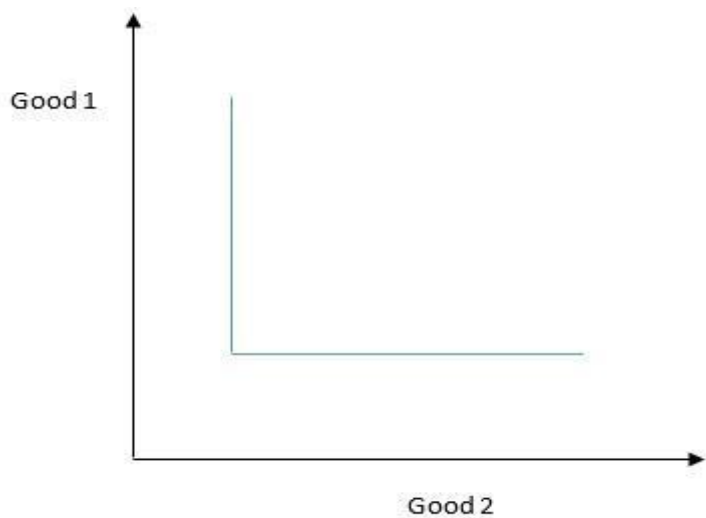
- a) Negative Risk Externality

- b) Adverse selection
- c) Moral Hazard
- d) Discounted Trading

A firm producing chemicals releases all its waste in the nearby river. This has caused water pollution and therefore, the villagers from nearby areas do not use the river anymore. Which of the following statements is true?

- a) Since the villagers are not using the river anymore, there is no externality.
- b) The concept of externality is not applicable here since there is only a firm (or producer) but no consumers.
- c) This is a positive externality, since shifting from river based livelihood to other means of livelihood indicates a positive structural change in the economy.
- d) This is negative externality as the villagers are a third party facing the consequences of the actions taken by someone else.

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 prefers item A to item B.
- c) This exhibits that items A and B are perfect complements.
- d) This exhibits that items A and B are perfect substitutes.

Mallika likes playing hockey more than playing cricket. Azad, on the other hand, prefers playing cricket to playing hockey. However, both of them also value spending time together rather than spending the afternoon apart. The following table represents the enjoyment levels (pay-offs) of Mallika and Azad,

depending on their choice of activity (the first number is Mallika's enjoyment level while the second number is Azad's).

Mallika	Azad	
	Cricket	Hockey
Cricket	3,5	2,2
Hockey	5,3	6,4

Based on the information in the table, what is the Nash Equilibrium?

- a) The Nash equilibrium is (hockey, cricket) where Mallika chooses hockey and Azad chooses cricket.
- b) The Nash equilibrium is (cricket, cricket) where both players choose cricket
- c) The Nash equilibrium is (hockey, hockey) where both players choose hockey
- d) The Nash equilibrium is (cricket, hockey) where Mallika chooses cricket and Azad chooses hockey.

In a competitive market, the adoption of a government intervention such as a tax will lead to:

- a) A deadweight loss
- b) An increase in consumer's surplus
- c) Greater overall efficiency
- d) A lower government revenue

The table below gives some macroeconomic aggregate data for a country. Calculate aggregate demand in this country.

Consumption (C)	40
Investment (I)	10
Government Spending (G)	40
Exports (X)	15
Imports (M)	20

- a) 125
- b) 75

- c) 85
- d) 90

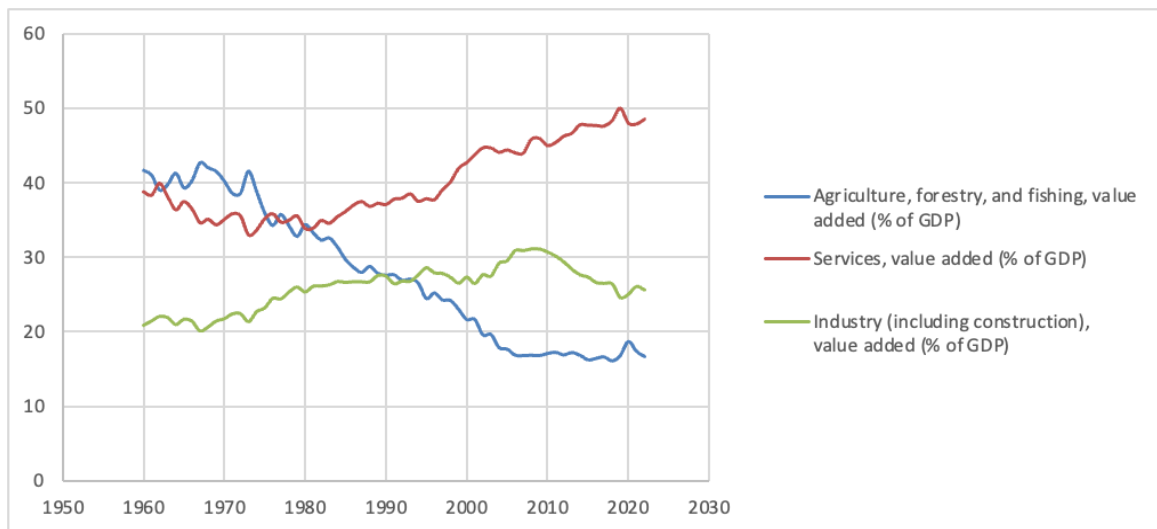
Assume that the consumption function is given by  $C=10 +.5Y$ , Investment is 10, Government Spending is 30, Exports are 15 and Imports are 5. What is the equilibrium income?

- a) 240
- b) 120
- c) 300
- d) 90

Which of the following statements is correct in how we measure GDP?

- a) The value added of government production is computed using the price that public goods that are produced in the economy
- b) To avoid measurement bias and increase fairness, the Government does not include the value of its own production in GDP.
- c) Information about imports but not exports is necessary to calculate GDP.
- d) GDP can be measured as the total spending on domestically produced goods and services during a given period of time.

This graph shows the sectoral composition of GDP for the Indian economy.



From the graph we can conclude:

- a) The Indian economy has experienced a sharp increase in industrial production since 2014.

- b) The Indian economy has not experienced structural change in the sectoral composition of GDP
- c) The structural change in the Indian economy is driven mostly by the service sector.
- d) The majority of Indians are dependent upon the service sector for their livelihoods.

What is the value of the multiplier in an economy with an MPC of 0.25?

- a) 4
- b) 1.33
- c) 0.75
- d) 1

Growth in output divided by growth in employment is defined as employment elasticity of growth. In India, economists have observed a steady decline in the employment elasticity. This is because:

- a) Since the 1980s, non-farm output has consistently grown much slower than non-farm employment.
- b) Since the 1980s, non-farm output has moved parallel to non-farm employment.
- c) Since the 1980s, non-farm output has been constant while non-farm employment increased.
- d) Indian economic growth remains weakly connected to job creation.

A Balance of Payments surplus means

- a) A country exports more goods than it imports.
- b) A country imports more goods than it exports.
- c) The country lends capital to the rest of the world.
- d) The country is not in debt to the International Monetary Fund (IMF).

If you were a government official after a financial market crisis (such as in 2007/2008), what policy options would you adopt to stop the financial crisis worsening?

- a) Expansionary monetary policy
- b) Tighter regulation of financial intermediaries
- c) No regulation of financial intermediaries
- d) Contractionary fiscal policy

Which of the following would decrease GDP? a)

A decrease in imports

- b) A decrease in government spending
- c) A decrease in remittances paid to domestic residents by relatives living abroad

d) An increase in exports

Inflation is most likely to be seen when

- a) There is a large increase in the price of petroleum
- b) There is a high level of unemployment
- c) Productivity is rising
- d) Import costs are falling

₹100 invested for 20 years at 16% per annum interest compounded annually will grow to:

- a)  $116^{20}$
- b)  $100[1 + (0.16)(20)]$
- c)  $100(1 + 0.16)^{20}$
- d)  $[100(1.6)]^{20}$

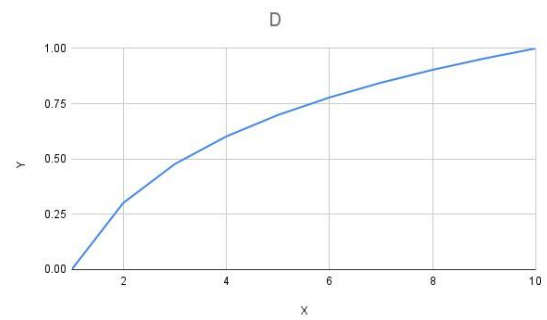
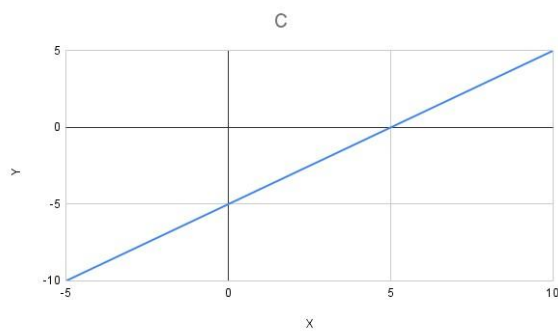
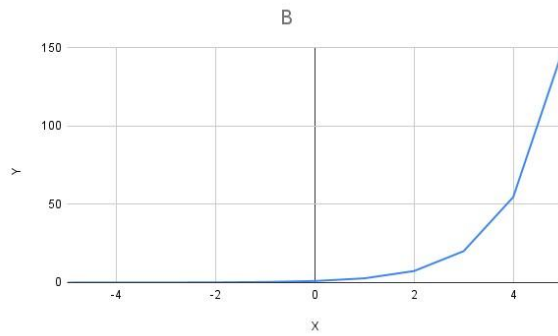
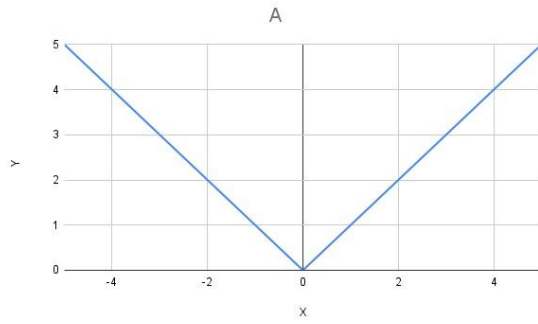
When an unbiased die with six faces is rolled, the probability of getting an odd number is equal to:

- a)  $1/3$
- b) Probability of getting an even number
- c) There is not enough information to answer the question.
- d)  $1/6$

Assume nominal GDP for India was ₹272 lakh crores in 2022. The real GDP, however, is ₹251.85 lakh crores. Calculate the GDP deflator

- a) 20.15
- b) 201.5
- c) 1.08
- d) 108

What are the functions that go with the graphs below?



- a) A:  $f(x)=x$ , B:  $f(x)=|x|$ , C:  $f(x)=e^x$ , D:  $f(x)=x+5$   
 b) A:  $f(x)=|y|$ , B:  $f(x)=y+5$ , C:  $f(x)=\log x$ , D:  $f(x)=e^x$   
 c) A:  $f(x)=|x|$ , B:  $f(x)=ex$ , C:  $f(x)=x+5$ , D:  $f(x)=\log x$   
 d) A:  $f(x)=|x|$ , B:  $f(x)=e^x$ , C:  $f(x)=x-5$ , D:  $f(x)=\log x$

The graph below shows monthly earnings of different types of workers in India.

## Monthly earnings of self-employed, regular and casual wage



Source: PLFS 2018-19

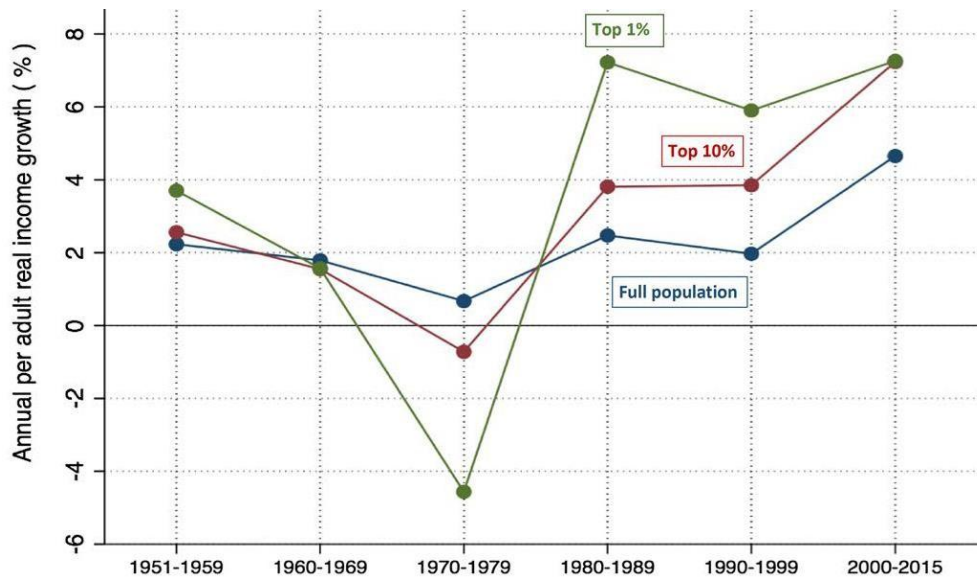
From the data on the graph we can conclude,

- There are no workers who earn more than 16134 Rs per month.
- Mean as a measure is biased because it always tends to be higher than median.
- Median wage of a regular worker is almost twice than the median wage of a casual wage worker.
- There are more regular wage workers than casual wage workers.

What does a bar chart show?

- A bar chart is a graph in which values of observations are plotted on the horizontal axis, and their density is plotted on the vertical axis.
- A bar chart is a graph in which the numerical values of variables are represented by the length of rectangles of equal width.
- A bar chart is a graph in which the numerical values of variables are represented by the equally tall rectangles of unequal width.
- A bar chart is a graph in which values of observations are plotted on the horizontal axis, and the frequency with which each value occurs in the data set is plotted on the vertical axis.

The graph below shows the National Income Growth in India from 1951 to 2015



Source: Chancel and Piketty (2019), 'Indian Income Inequality, 1922-2015: From British Raj to Billionaire Raj', in *Review of Income and Wealth Vol 65(S1)*.

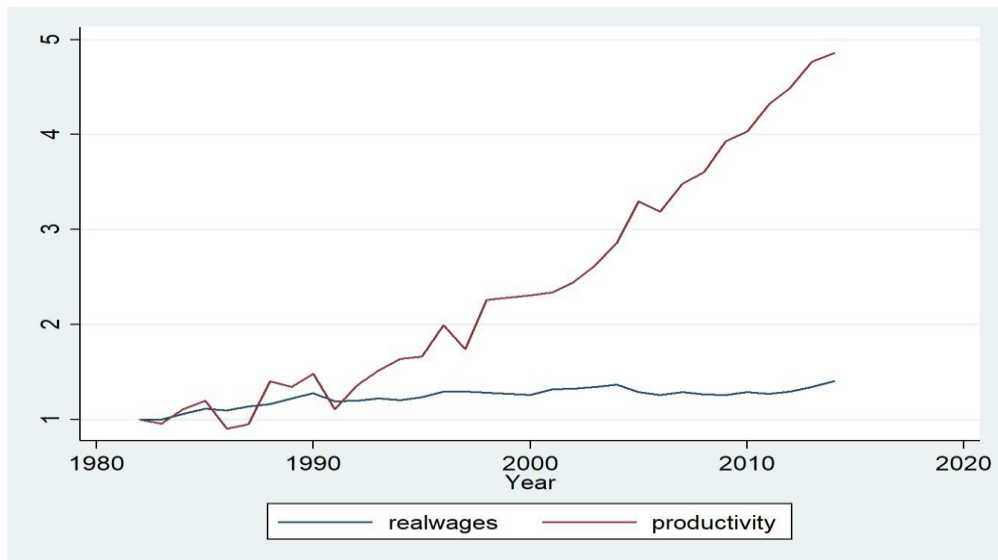
From the graph we can conclude the following:

- The top 1% has never experienced a larger fall in real income growth as compared to the top 10%
- The decline in income growth from 1970-1979 was the largest for the top 1% group
- The bottom 10% group experienced a larger decline of average income growth as compared to the top 10% group in the 1970s.
- The top 1% group experienced a substantially smaller decline in average income growth as compared to the decline in average real income growth for the population

Economists such as Angus Deaton have explored the relationship between adult height and the distribution of income across a population. If adult height is an increasing but concave function of income, then...

- On average richer people will be on average taller
- On average richer women will be taller than poorer men
- Median heights will be higher than average heights
- A relatively tall person must be among the rich in a society

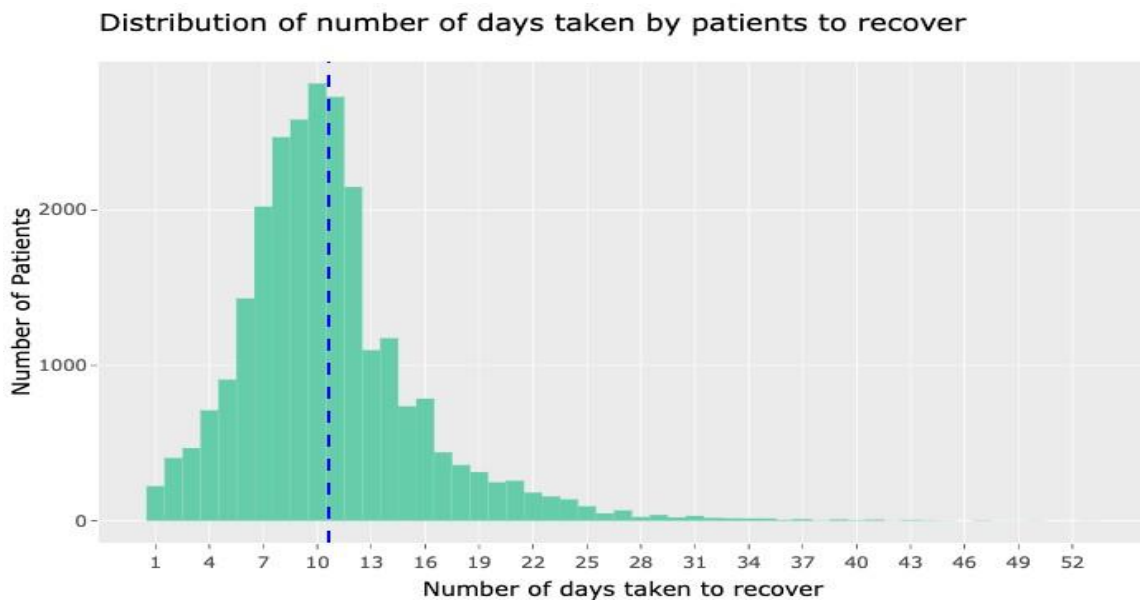
This graph shows real wage and productivity growth in India from 1982 to 2012.



From this data we can conclude that..

- a) Real wages have increased in inverse proportion to increases in productivity.
- b) Productivity increases have been slower than real wage growth.
- c) There was a brief period in which real wages grew faster than productivity.
- d) Labour Unions in India have not been able to bargain hard enough.

The graph below shows the number of days taken by patients to recover from COVID:



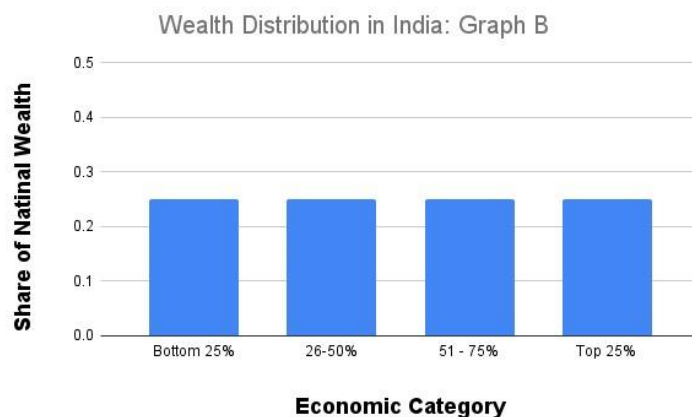
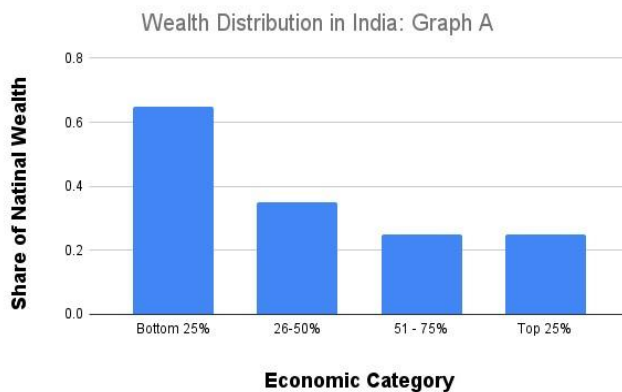
From this graph we can conclude that..

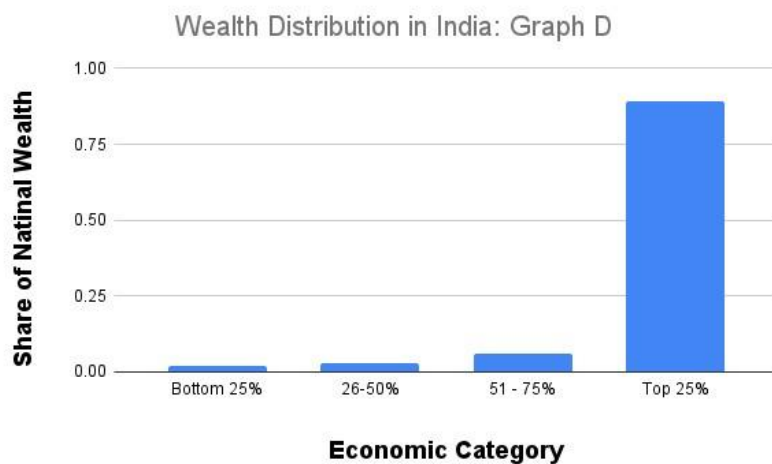
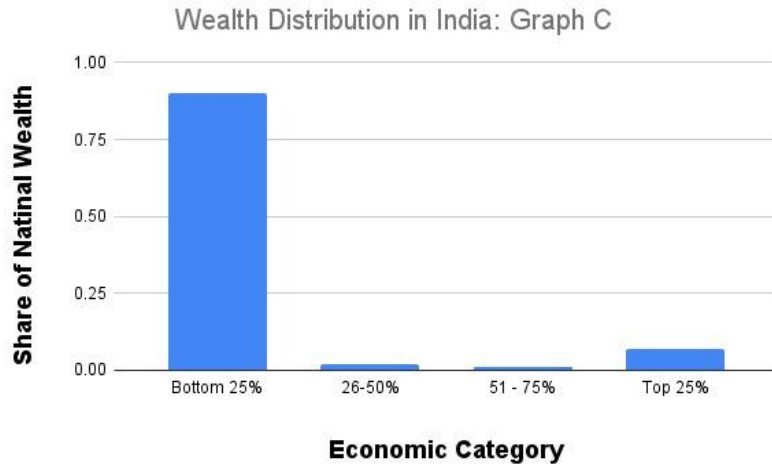
- a) Very few patients took less than 13 days to recover.
- b) All patients recovered within 37 days.
- c) Median time to recovery is slightly higher than the average time to recovery.
- d) 2000 patients recovered in one week.

Data on crime against women in India is:

- a) Over-reported, but under-recorded. This is because women typically report both actual and false incidents of crime, but the police register only the actual ones.
- b) Over-reported, and thus, over-recorded. This is because women typically report both actual and false incidents of crime, but the police are legally bound to register all cases that are reported.
- c) Under-recorded, but not under-reported. This is because all the crimes against women are reported, but not all of them are registered by the police.
- d) Under-reported as well as under-recorded. This is because women are neither encouraged to report crimes against them, nor do the police register all the reported crimes against women.

The following graphs show four possible distributions of wealth in India. That is, the share of total wealth held by the rich and the poor





Which of the above graphs provides a relatively accurate description of Indian reality?

- a) Graph A
- b) Graph B
- c) Graph C
- d) Graph D

“On the 26th of January 1950, we are going to enter into a life of contradictions,” said Ambedkar. “In politics, we will have equality, and in social and economic life, we will have inequality. In politics, we will be recognizing the principle of one man, one vote and one vote, one value. In our social and economic life, we shall, by reason of our social and economic structure, continue to deny the principle of one man, one value.” (Source: Constituent Assembly of India Debates (Proceedings), Vol. 11:576.)

The central claim of the passage is that:

- a) Political systems can ensure fairness for all citizens, while economic and social systems cannot.
- b) Politics in India can ensure fairness for all men, but not for women.

- c) Votes of people who are at the bottom of inequality, should matter more as opposed to those who are at the top. That is, votes must be differently weighted.
- d) Even if each vote has equal weights, due to social and economic inequality, not all voters are equal.

The India Lights platform shows light output at night for 20 years for 600,000 villages across India. Each point on the map represents the light output of a specific village at a given point in time. This data is used to provide an estimate of economic activity. A researcher observes that region A has more lights than region B. Which of the following statements is certainly true?

- a) Region B has less industries than region A.
- b) Region B is a rural area.
- c) Region A has an election coming up soon.
- d) Region B has more crime than region A.

The State of Working India 2023 report finds as husband's income rises, women are less likely to work. In urban areas, after the husband's income crosses ₹40,000 per month, the chance of the wife working increases again. Which of the following statements is certainly true?

- a) Husband's earning more than 40,000 rupees are more progressive, therefore they allow their wives to participate in the labour market.
- b) There is a U-shaped relationship between women working and husband's income.
- c) There is an inverted-U-shaped relationship between women working and husband's income.
- d) There is a U-shaped relationship between gender norms and household income.

Consider a consumer who spends a fixed share of their income on food. Which of the following statements about the magnitude of price elasticity and income elasticity of demand for food are true?

- a) Price elasticity of demand is 1, but income elasticity of demand can be any number between 0 and 1.
- b) Income elasticity of demand is 1, but price elasticity of demand can be any number between 0 and 1.
- c) Both Price elasticity and income elasticity of demand are 1.
- d) Both Price elasticity and income elasticity of demand can be any number between 0 and 1.

A Cobb-Douglas production function with output  $Q$  and capital inputs ( $K$ ) and labour inputs ( $L$ ) is given by:  $Q=f(K,L)=L^\beta K^\alpha$  where  $\alpha=.2$  and  $\beta=.8$

What returns to scale does this production function have?

- a) Decreasing returns to scale
- b) Increasing returns to scale
- c) Constant returns to scale
- d) Not enough information is given to determine returns to scale

Consider two consumers Akbar and Salma in a two-good economy (x and y). Their respective utility functions are given by:

$$U^A = x^3y$$

$$U^S = x^{0.75}y^{0.25}$$

What can we say about the Akbar and Salma's relative preferences for goods x and y?

- a) Akbar has a stronger preference for good x over y compared to Salma.
- b) Salma has a stronger preference for good x over y compared to Akbar.
- c) We cannot compare the relative preferences of the two consumers.
- d) Akbar and Salma's relative preferences for goods x and y are the same.

The table represents market demand Q for a good, at different prices P.

Q	100	200	300	400	500	600	700	800	900
P	270	240	210	180	150	120	90	60	30

The firm's unit cost of production is ₹60. Based on this information, which of the following is correct?

- a) The profit-maximizing output is  $Q = 400$ .
- b) The maximum profit that can be attained is ₹50,000.
- c) The firm will make a loss at all outputs of 800 and above.
- d) At  $Q = 100$ , the firm's profit is ₹20,000.

India is a major supplier of mangoes globally. Suppose a storm hits the West coast of India and wipes out a majority of the mango orchards there. At the same time, Mexico, another major producer, experiences unusually good weather and has a bumper crop. Given this information which of the following can we eliminate?

- a) World price increases.
- b) World quantity traded decreases.
- c) World demand curve shifts to the right.
- d) World supply curve shifts to the left.

Consider an economy where a government is concerned with income inequality. The government is considering two policy options:

Policy 1: No intervention, allowing the market to operate freely.

Policy 2: The government takes over all private wealth in the economy and then redistributes it equally among each household, while allowing the market to function competitively. Which of the following statements are most correct?

- a) The final allocation will always be the same across Policy 1 and 2.
- b) In general, both policies will give different allocations but they will be equitable.
- c) Policy 1 will ensure both efficiency and equity.
- d) In general, both policies will give different allocations but they will be efficient.

Many economists would argue that a monopoly is inefficient because is:

- a) Has no incentive to minimize costs.
- b) Produces too little output and sets a price above marginal cost.
- c) Produces too much output and thus wastes scarce resources
- d) Usually produces unsafe products if not regulated by the government.

An example of a public goods is ....

- a) Roads
- b) Air
- c) Health care
- d) Primary education

Rent-seeking reduces social surplus because...

- a) the rent-seeking activity is costly and nonproductive.
- b) rent-seeking reduces the quantity produced.
- c) BOTH (a) and (b)
- d) NEITHER (a) or (b)

Which of the following describes a Nash equilibrium?

- a) A firm chooses its dominant strategy, if one exists.
- b) Every competing firm in an industry chooses a strategy that is optimal given the choices of every other firm.
- c) Market price results in neither a surplus nor a shortage.
- d) All firms in an industry are earning zero economic profits.

Which of the following is included in the GDP estimation?

- a) Illegal Drug Sales
- b) Unpaid housework
- c) Unpaid taxes
- d) Consulting Services

Under a flexible exchange-rate system, the Indian rupee will appreciate against the Japanese yen when...

- a) India's inflation rate is greater than Japan's inflation rate.
- b) India has a trade deficit with Japan.
- c) Japan's money supply decreases while India's money supply increases.
- d) Real interest rates increase in India relative to those in Japan.

Consider a closed economy without government, such that output ( $Y$ ) is the sum of consumption ( $C$ ) and autonomous investment ( $I$ ). The consumption function is given by  $C = A + bY(1-t)$ , where  $A$  is autonomous consumption,  $b$  is the marginal propensity to consume, and  $t$  is the tax rate. If  $A=40$ ,  $I=20$ ,  $b=0.5$  and  $t=0.2$ , the equilibrium output in a simple Keynesian model will be

- a) 60
- b) 80
- c) 100
- d) 120

Consider a closed economy within a simple Keynesian model. The interest rate is exogenously given and there is no government sector. The marginal consumption propensity (MPC) is 0.25. If investment expenditure rises by 1 unit, output rises by

- a) 1 unit
- b) 0.25 units
- c) 4 units
- d) 0 units

The government increases expenditure by increasing lump-sum tax by the same amount. The value of this balanced budget multiplier is

- a) 1
- b) less than 1
- c) greater than 1
- d) 0

Which of the following are correct about changes in tax rates, changes in the level of government expenditures and changes in the money supply?

- a) They are all controlled by the central bank
- b) They are tools of discretionary fiscal policy
- c) They are automatic stabilizers
- d) They have different lag times between implementation of a policy and its effect on aggregate demand.

The central bank of a country sets the interest rate for inflation targeting. If the central bank wants to reduce the inflation rate, then it will

- a) increase interest rate
- b) reduce interest rate
- c) devalue nominal exchange rate
- d) keep interest rate unchanged

Which of the following would cause the aggregate demand curve to shift to the right?

- a) A decrease in the population
- b) A decrease in net exports
- c) A decrease in taxes
- d) A decrease in net exports

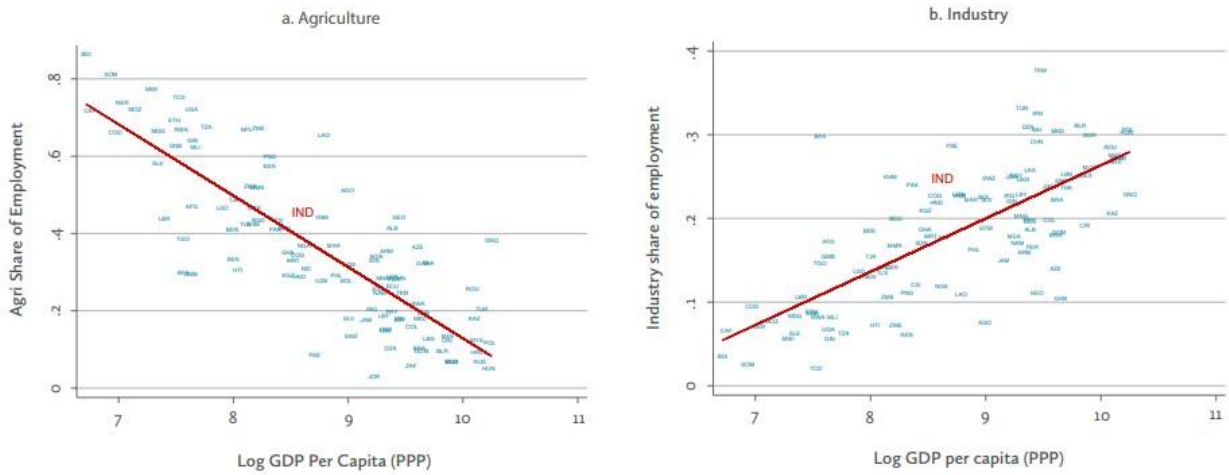
Which of the following statements is true about a trade deficit country?

- a) Net Exports are negative
- b) Net Capital Outflow Must be Positive
- c) Exports exceed imports
- d) Change in foreign exchange reserves is positive

An increase in inflation and unemployment at the same time could be explained by an increase in which of the following?

- a) Consumer spending
- b) Investment spending

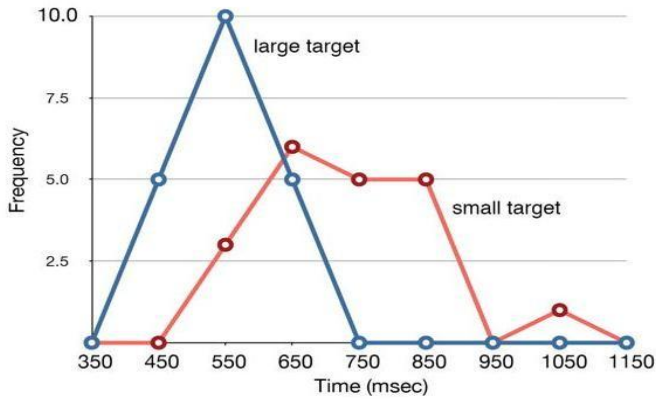
- c) Inflationary expectations
- d) Labour productivity



The figure shows a scatter plot of shares of employment in (a) Agriculture and (b) Industry against the country's Log GDP per capita.

Which of the following best describes the correlation between share of employment and Log GDP per capita for Agriculture and Industry respectively.

- a) +1 ; -1
- b) +0.6; - 0.5
- c) -1 ; +1
- d) -0.6 ; + 0.5



An experiment was conducted in which the participants were given a task to move a computer cursor to a target area on the screen. On 20 of the trials, the target area was a large rectangle; and on the other 20 trials, the target area was a small rectangle. Time (in milliseconds) to reach the target was recorded on each trial. The two distributions (one for each target) are plotted together in the figure.

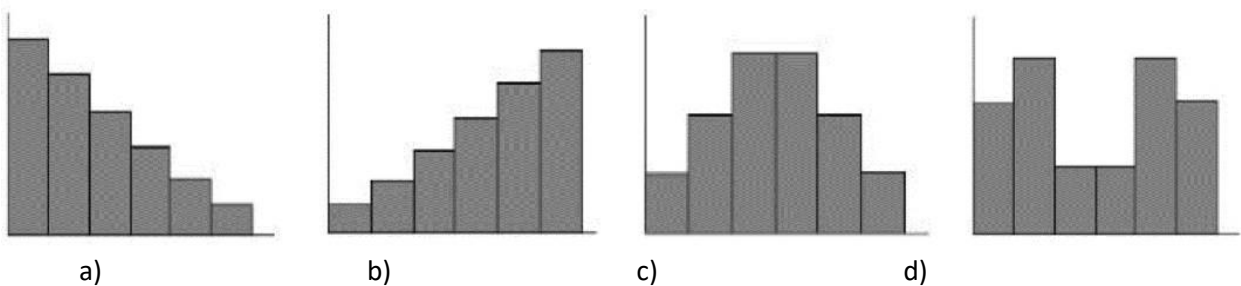
Which of the following can be correctly inferred from the figure?

- a) Average time to complete the task is lesser when the target is small
- b) No participant took more than 750 msec to complete the task in large target
- c) No participant took more than 950 msec to complete the task in small target
- d) The least time any participant took to complete the task in small target was 450 msec.

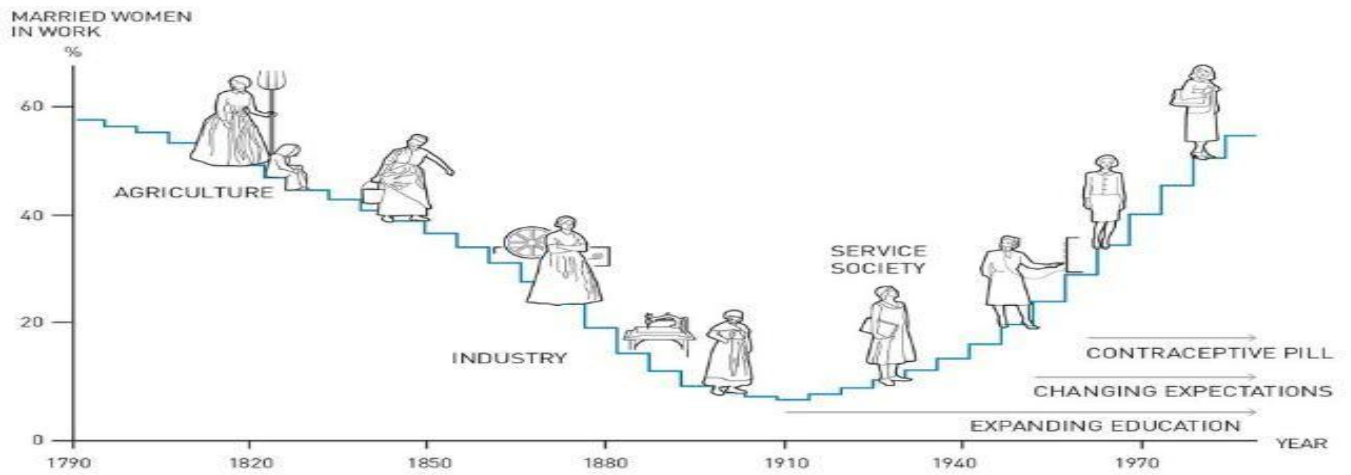
In a class of 20 students, the average age of the students is 15 years. The age of the teacher is 36 years. What would be the average age of the class if we include all students and the teacher as part of the class?

- a) 15 years
- b) 16 years
- c) 25.5 years
- d) 36 years

In which of the following distributions, the mean value of observations is greater than the median value?

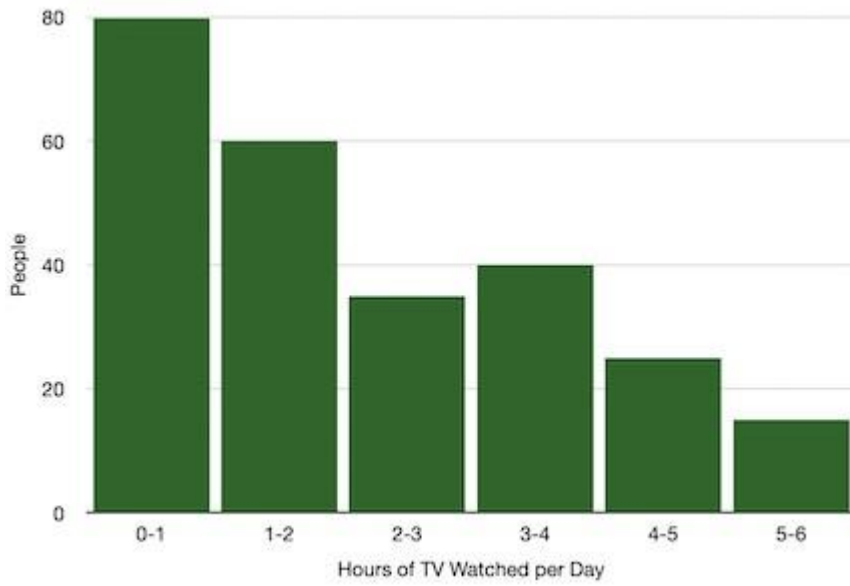


The following graph shows the type of work married women have engaged in over time, with some specific historical events.



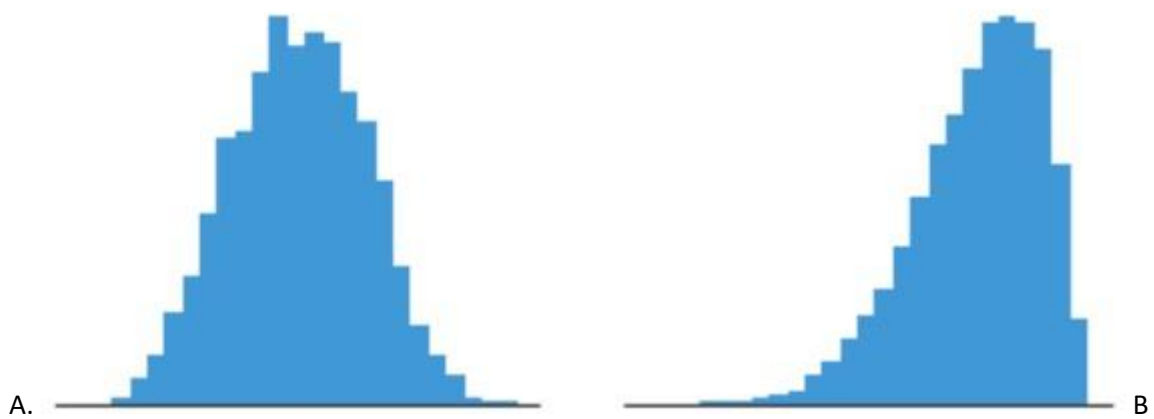
Based on the above figure, which of the following statements is true?

- a) Growth of the agriculture sector led to the decline of married women working.
- b) The industrial revolution increased women's participation in employment.
- c) The expansion of education is positively correlated with the rise in married women's participation in work.
- d) The growth of the service sector is associated with the decline of married women in work.



A study was conducted to see how many hours of TV people watch per day. The study concluded and the results were shared in the form of the histogram above. How many people watched TV 1-2 hours a day?

- a) 80
- b) 60
- c) 36
- d) 40



Choose the appropriate match of the data and histograms given:

- I. Height of individuals in a country
- II. Age of Individuals who died of a natural cause

- a) I - A; II- B
- b) I - A; II- A
- c) I - B; II- B
- d) I - B; II- A

Read the following table carefully to answer the question.

Year	Nominal GDP	GDP Deflator	Population
2010	5000	125	11
2020	6600	150	12

What is this country's real GDP per capita in 2020?

- a) 360
- b) 364
- c) 367
- d) 550

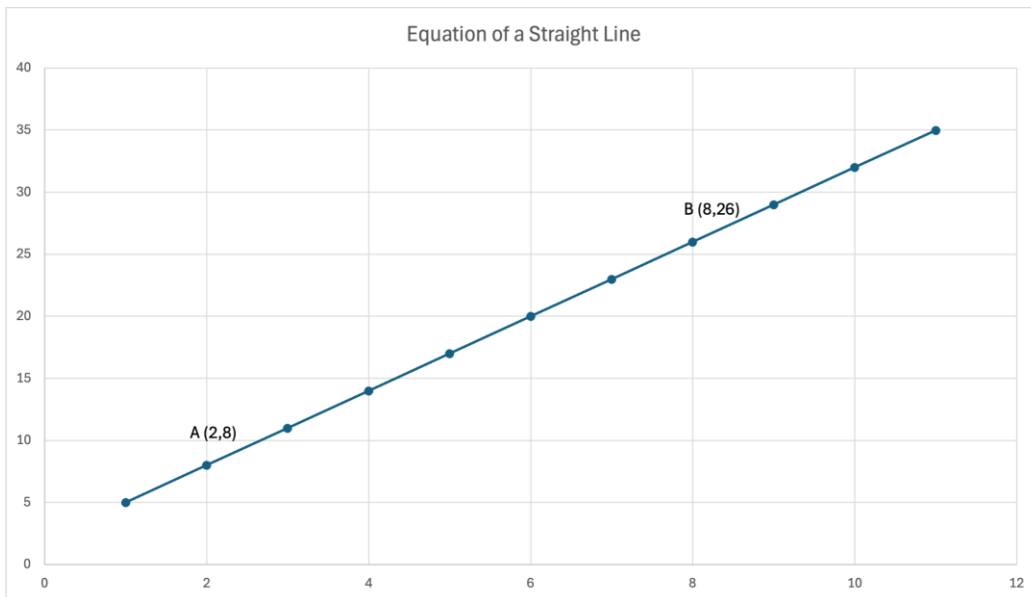
The table displays the data on Nominal GDP and Population for a country, for the year 2010 and 2020.

Year	Nominal GDP	GDP Deflator	Population
2010	5000	125	11
2020	6600	150	12

What is the rate of real output growth between the years 2010 and 2020?

- a) 32%
- b) 16%
- c) 10%

d) 12%



Given points A and B on a straight line in the figure, determine the equation of the line passing through these points. Use the coordinates of points A and B to find the slope and intercept.

- a)  $y = x+3$
- b)  $y = 3x+5$
- c)  $y = 3x+2$
- d)  $y = 3x$

"The Indian story of economic growth and structural transformation has been one of significant achievements as well as continuing challenges. On the one hand, the economy has grown rapidly since the 1980s, drawing millions of workers out of agriculture. And the proportion of salaried or regular wage workers has risen while that of casual workers has fallen. On the other hand, manufacturing has failed to expand its share of GDP or employment significantly. Instead construction and informal services have been the main job creators. Further, the connection between growth and good jobs continues to be weak." (Source: State of Working India 2023, Azim Premji University)

According to the paragraph given above, what ongoing challenge does India face despite its economic achievements?

- a) Rapid industrialization without workforce readiness
- b) Weak correlation between economic progress and quality employment
- c) Absence of educational opportunities
- d) Sustained low wages for all sectors

*This is a statement and assumption logical reasoning type question, a statement is given in the question followed by a few assumptions made on the basis of them. Candidates need to pick the assumption which most appropriately and logically is correct.*

Statement: "The developmentally appropriate age for a child to start formal school is 5 years old."

Assumption I: At this age, children are ready to start learning foundational numeracy and literacy.

Assumption II: After this age, children do not like to go to school

Assumption III: Schools do not take admission of children who are more than 5 years old

- a) Only Assumption I follows
- b) Only Assumption II follows
- c) Both Assumptions I & III follow
- d) Assumption I, II & III follow

Which of the boxes goes in the blank box (with a '?') in the sequence?

1 1 0 1	1 0 1 0		1 1 0 0	1 1 0 1
1 0 1 0	1 0 0 0	?	1 1 0 1	1 0 1 0
1 0 0 0	1 1 0 0		1 0 1 0	1 0 0 0
1 1 0 0	1 1 0 1		1 0 0 0	1 1 0 0

a)	b)	c)	d)
1 1 0 1	1 0 0 0	1 1 0 0	1 0 0 0
1 0 0 0	1 1 0 0	1 1 0 1	1 1 0 1
1 1 0 0	1 1 0 1	1 0 0 0	1 1 0 0
1 0 1 0	1 0 1 0	1 0 1 0	1 0 1 0

Nine students are sitting around a circular table studying for a microeconomics exam. All students are facing the center of the circular table.

The students' names are: Pratibha, Qaadiri, Radhika, Smriti, Tahir, Umeed, Varun, Wahib and Zaeen.

Radhika is sitting 3 chairs to the right of Zaeen.

Zaeen is sitting 2 chairs to the right of Pratibha.

Smriti is not next to Zaeen or Radhika.

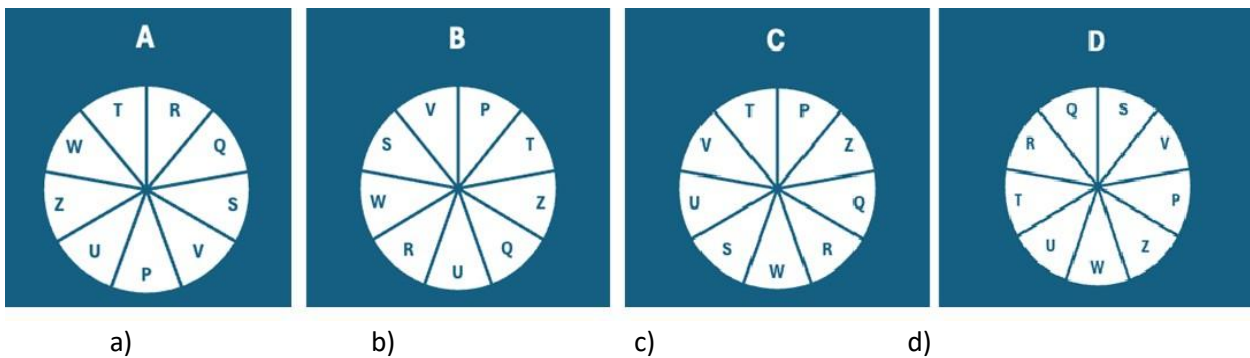
Tahir is sitting 3 chairs to the left of Smriti.

Qaadir is sitting 3 chairs to the right of Wahib.

Wahib is not sitting next to Smriti.

Varun is not next to Zaeen.

Given this information, which of these images is an accurate representation of where the students are seated?



*This question is a statement and conclusions type question where you are given a statement followed by a set of conclusions for the same. Candidates need to choose the most appropriate conclusion regarding the statement given.*

**Statement:** An electric scooter producing company in India has moved from a position of not being able to meet demand, to a position where there is now enough supply to fully meet demand.

**Conclusion I:** India was previously importing electric scooters

**Conclusion II:** If this company produces more electric scooters than meets internal demand next year, it can start exporting and selling in abroad markets.

- a) Only Conclusion I is true
- b) Only Conclusion II is true
- c) Both Conclusion I and II are true
- d) Neither Conclusion I nor II is true

Consider a consumer who spends a fixed share of their income on food. Which of the following statements about the magnitude of price elasticity and income elasticity of demand for food is true?

- a) Price elasticity of demand is 1, but income elasticity of demand can be any number between 0 and 1.
- b) Income elasticity of demand is 1, but price elasticity of demand can be any number between 0 and 1.
- c) Both Price elasticity and income elasticity of demand are 1.
- d) Both Price elasticity and income elasticity of demand can be any number between 0 and 1.

A Cobb-Douglas production function is given by::

$$Q=AL^{\beta} K^{\alpha}$$

where:

- Q is the total output,
- L is the quantity of labor,
- K is the quantity of capital,
- A is a constant (total factor productivity),
- $\alpha$  and  $\beta$  are the output elasticities of capital and labor, respectively.

If the production function exhibits decreasing returns to scale, which of the following statements is correct?

- a)  $\alpha+\beta=1$
- b)  $\alpha+\beta<1$
- c)  $\alpha+\beta>1$
- d)  $\alpha=\beta=0.5$

Consider two consumers Akbar and Salma in a two-good economy (x and y). Their respective utility functions are given by:

$$U^A = x^3y$$

$$U^S = x^{0.75}y^{0.25}$$

What can we say about Akbar and Salma's relative preferences for goods x and y?

- a) Akbar has a stronger preference for good x over y compared to Salma.
- b) Salma has a stronger preference for good x over y compared to Akbar.
- c) We cannot compare the relative preferences of the two consumers.
- d) Akbar and Salma's relative preferences for goods x and y are the same.

The table represents market demand Q for a good, at different prices P.

Q	100	200	300	400	500	600	700	800	900
P	270	240	210	180	150	120	90	60	30

The firm's unit cost of production is ₹60. Based on this information, which of the following is correct?

- The profit-maximizing output is  $Q = 400$ .
- The maximum profit that can be attained is ₹50,000.
- The firm will make a loss at all outputs of 800 and above.
- At  $Q = 100$ , the firm's profit is ₹20,000.

Due to an early monsoon and unexpected bad weather in India, the supply of mangoes decreased. What effect will this situation most likely have on the demand curve for mangoes in the Indian market?

- The demand curve will shift to the right.
- The demand curve will shift to the left.
- The demand curve will remain unchanged, but the equilibrium price will increase.
- The demand curve will remain unchanged, but the equilibrium quantity will decrease.

Consider an economy where a government is concerned with income inequality. The government is considering two policy options:

Policy 1: No intervention, allowing the market to operate freely.

Policy 2: The government takes over all private wealth in the economy and then redistributes it equally among each household, while allowing the market to function competitively. Which of the following statements is most accurate?

- The final allocation will always be the same across Policy 1 and 2.
- In general, both policies will give different allocations but they will be equitable.
- Policy 1 will ensure both efficiency and equity.
- In general, both policies will give different allocations but they will be efficient.

Which of the following statements best describes the characteristics of a monopoly market structure?

- a) There are many firms competing, and each has no control over the market price.
- b) Firms sell identical products, and entry into the market is easy.
- c) There is a single seller that controls the entire market supply and can set prices.
- d) Many firms sell differentiated products, and there are few barriers to entry.

Which of the following is a characteristic of a public good?

- a) It is excludable and rivalrous.
- b) It is non-excludable and non-rivalrous.
- c) It is provided only by the private sector.
- d) It leads to market failure due to excessive competition.

Positive externalities are associated with which of the following?

- a) Consuming a dosa for oneself
- b) Providing caring/reproductive labour for children
- c) Listening to music wearing headphones
- d) Walking in a public park

In game theory, a situation in which one firm can gain only what another firm loses is called a

- a) non zero-sum game.
- b) prisoners' dilemma.
- c) zero-sum game.
- d) cartel temptation.

Which of the following items is NOT included in the calculation of Gross Domestic Product (GDP)?

- a) The value of goods and services produced by a country's residents
- b) The value of used cars sold in a market transaction
- c) Government spending on infrastructure
- d) The value of unpaid household work

Which of the following statements best describes the effect of currency depreciation on a country's economy?

- a) It makes imports cheaper and exports more expensive.

- b) It increases the purchasing power of consumers for foreign goods.
- c) It leads to a decrease in inflation rates.
- d) It makes exports cheaper and imports more expensive.

Consider a closed economy without government, where output ( $Y$ ) is the sum of consumption ( $C$ ) and autonomous investment ( $I$ ). The consumption function is given by  $C=A+bY(1-t)$ , where

- Autonomous consumption ( $A$ ) = 200
- Marginal propensity to consume ( $b$ ) = 0.5
- Tax rate ( $t$ ) = 0.2
- Autonomous investment ( $I$ ) = 40

What is the equilibrium output ( $Y$ ) in this economy?

- a) 240
- b) 300
- c) 400
- d) 440

Consider a closed economy within a simple Keynesian model. The interest rate is exogenously given and there is no government sector. The marginal consumption propensity (MPC) is 0.6. If investment expenditure rises by 1 unit, output rises by

- a) 1 unit
- b) 2.5 units
- c) 3 units
- d) 4 units

The government increases expenditure by increasing lump-sum tax by the same amount. The value of this balanced budget multiplier is

- a) 1
- b) less than 1
- c) greater than 1
- d) 0

Which of the following are correct about changes in tax rates, changes in the level of government expenditures and changes in the money supply?

- a) They are all controlled by the central bank
- b) They are tools of discretionary fiscal policy
- c) They are automatic stabilizers
- d) They have different lag times between implementation of a policy and its effect on aggregate demand.

The central bank of a country sets the interest rate for inflation targeting. If the central bank wants to reduce the inflation rate, then it will

- a) increase interest rate
- b) reduce interest rate
- c) Devalue nominal exchange rate
- d) keep interest rate unchanged

Which of the following would cause the aggregate demand curve to shift to the left?

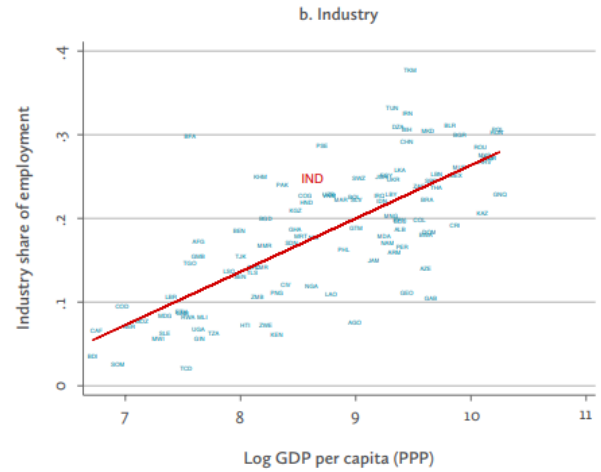
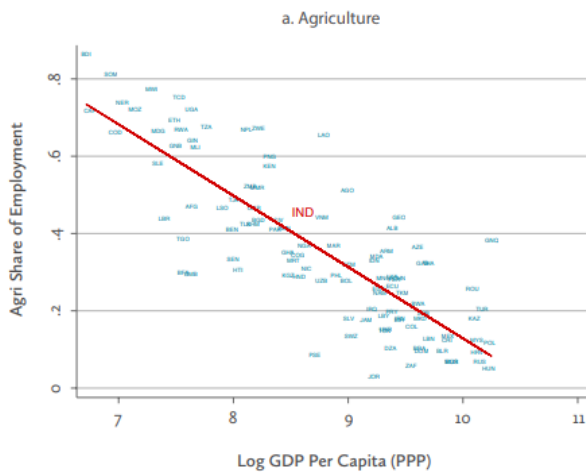
- a) An increase in the population
- b) An increase in net exports
- c) An increase in taxes
- d) An increase in net exports

Which of the following statements is true about a trade surplus country?

- a) Net Exports are positive
- b) Net Capital Outflow Must be Negative
- c) Imports exceed exports
- d) Change in foreign exchange reserves is negative

A decrease in inflation and unemployment at the same time could be explained by which of the following?

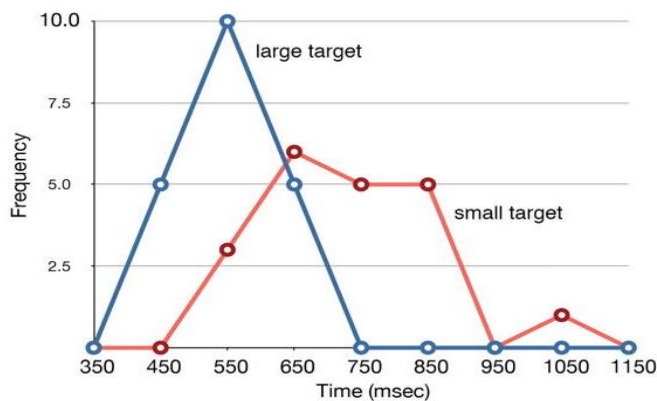
- a) Contractionary Monetary Policy: Higher interest rates
- b) Contractionary Fiscal Policy: Reduced government spending on infrastructure or social programs.
- c) Global Economic Conditions: Favorable global economic conditions, such as lower commodity prices or increased exports, accompanied by strong demand for labor.
- d) Supply-Side Factors: Decline in productivity or decline in the supply of goods



The figure shows a scatter plot of shares of employment in (a) Agriculture and (b) Industry against the country's Log GDP per capita.

Which of the following best describes the correlation between share of employment and Log GDP per capita for Agriculture and Industry respectively.

- a) +1 ; -1
- b) +0.6; - 0.5
- c) -1 ; +1
- d) -0.6 ; + 0.5



An experiment was conducted in which the participants were given a task to move a computer cursor to a target area on the screen. On 20 of the trials, the target area was a large rectangle;

and on the other 20 trials, the target area was a small rectangle. Time (in milli-seconds) to reach the target was recorded on each trial. The two distributions (one for each target) are plotted together in the figure.

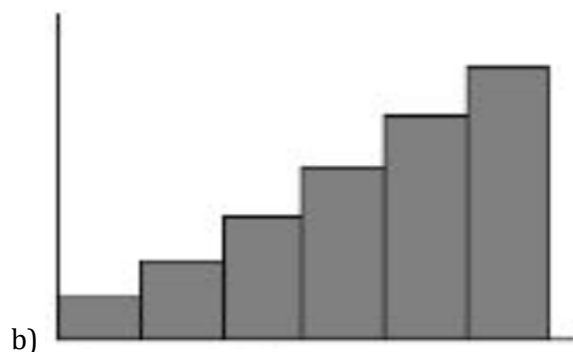
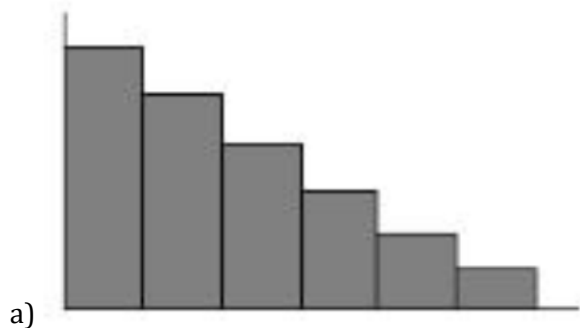
What is the average time taken to complete the task in large target and small target respectively?

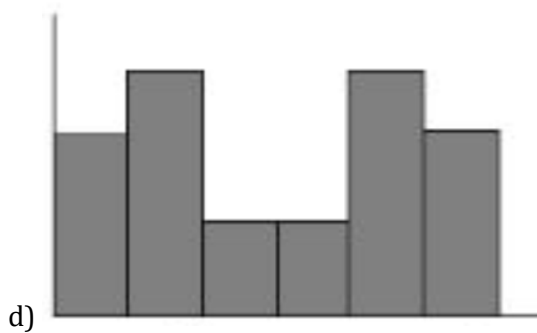
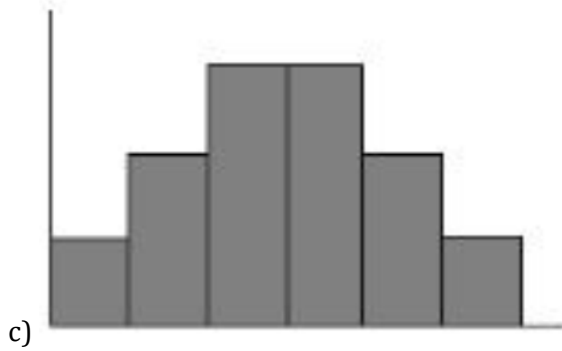
- a) 550 msec and 730 msec
- b) 550 msec and 650 msec
- c) 500 msec and 750 msec
- d) 500 msec and 730 msec

In a class of 20 students, the average age of the students is 15 years. The age of the teacher is 36 years. What would be the average age of the class if we include all students and the teacher as part of the class?

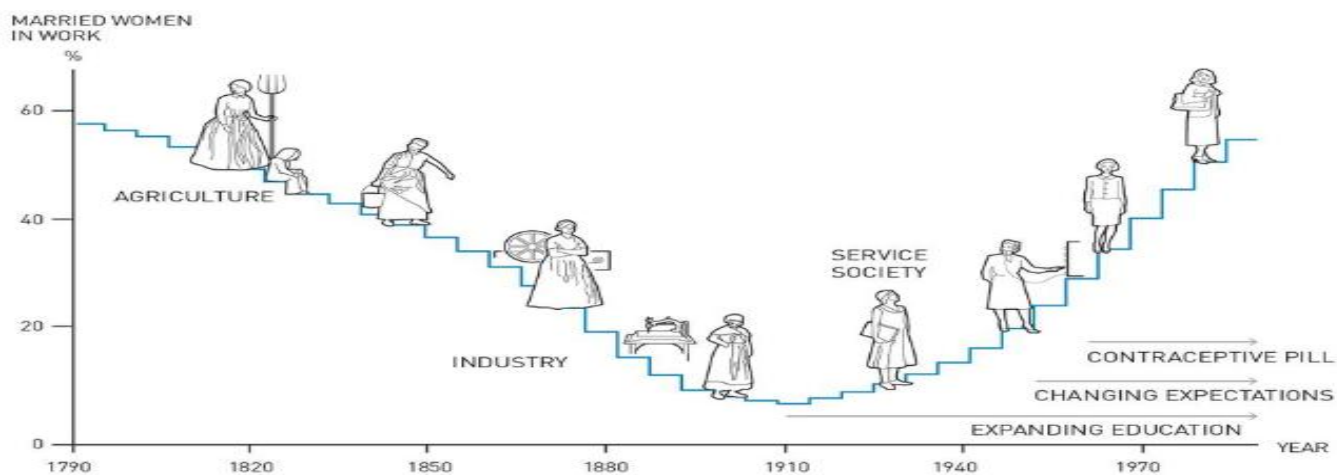
- a) 15 years
- b) 16 years
- c) 25.5 years
- d) 36 years

In which of the following distributions, the mean value of observations is greater than the median value?





The following graph shows the type of work married women have engaged in over time, with some specific historical events.



Based on the above figure, which of the following statements is true?

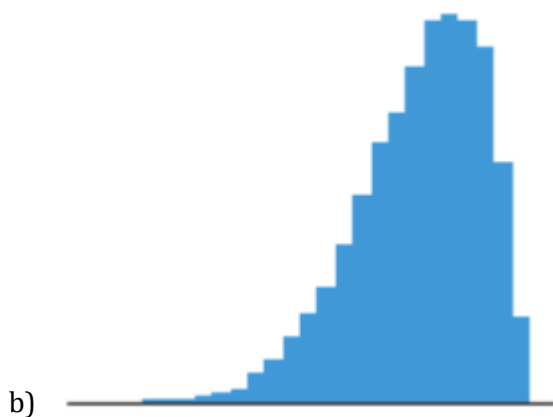
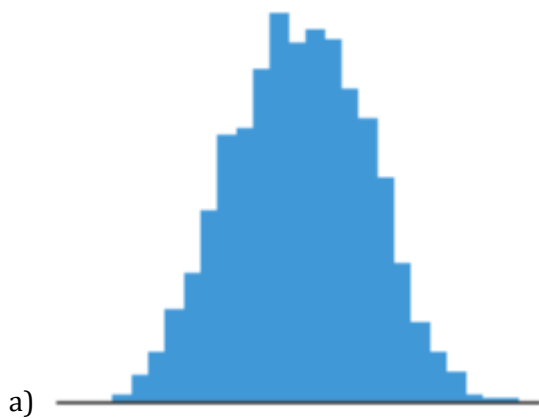
- a) Growth of the agriculture sector led to the decline of married women working.
- b) The industrial revolution increased women's participation in employment.
- c) The expansion of education is positively correlated with the rise in married women's participation in work.
- d) The growth of the service sector is associated with the decline of married women in work.

6. A histogram illustrates the distribution of annual incomes for a sample of 50 households in a city. The income ranges and their corresponding frequencies are as follows:

- ₹0 - ₹2,00,000: 5 households
- ₹2,00,001 - ₹4,00,000: 10 households
- ₹4,00,001 - ₹6,00,000: 15 households
- ₹6,00,001 - ₹8,00,000: 10 households
- ₹8,00,001 - ₹10,00,000: 5 households
- Over ₹10,00,000: 5 households

Based on this histogram, which of the following conclusions is most accurate?

- a) Most households earn more than ₹6,00,000 annually.
- b) The income distribution is skewed towards higher incomes.
- c) The largest group of households falls within the ₹4,00,001 - ₹6,00,000 range.
- d) There are no households with an income below ₹2,00,000.



Choose the appropriate match of the data and histograms given:

- I. Height of individuals in a country
- II. Age of Individuals who died of a natural cause

- a) I - A; II- B
- b) I - A; II- A
- c) I - B; II- B
- d) I - B; II- A

In the previous year, the Consumer Price Index (CPI) in India was reported as follows:

CPI at the beginning of the year: 150

CPI at the end of the year: 165

What is the inflation rate for the last year?

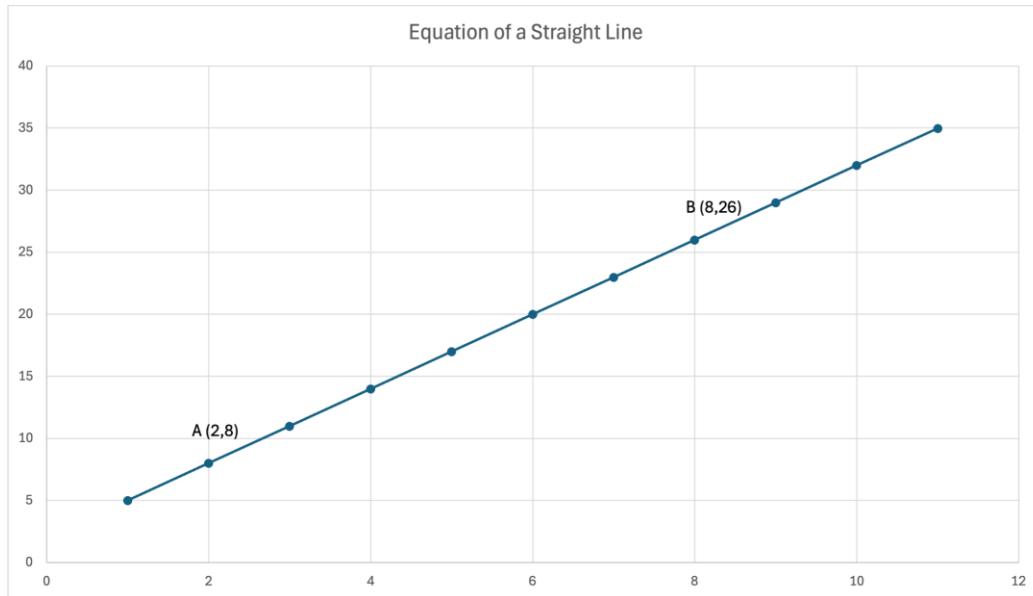
- a) 10%
- b) 12%
- c) 15%
- d) 20%

The table displays the data on Nominal GDP and Population for a country, for the year 2010 and 2020.

Year	Nominal GDP	GDP Deflator	Population
2010	5000	125	11
2020	6600	150	12

What is the real GDP per capita in 2020?

- a) 360
- b) 364
- c) 367
- d) 550



Given points A and B on a straight line in the figure, determine the equation of the line passing through these points. Use the coordinates of points A and B to find the slope and intercept.

- a)  $y = x+3$
- b)  $y = 3x+5$
- c)  $y = 3x+2$
- d)  $y = 3x$

1. “Much attention has been focused on the exit of women from the workforce during the high growth period post-2004. However, alongside this exit, the same period also saw a rapid increase in the proportion of salaried workers among those women who continued to remain in the workforce. Simultaneously, education levels have risen rapidly for both men and women. In this paper, we examine the long-run changes in the gender earnings gap among salaried workers in India. We draw on five rounds of the National Sample Survey Office quinquennial Employment–Unemployment Surveys and two rounds of the Periodic Labour Force Survey to show that the raw gender earnings gap has narrowed in this period. But most of this is due to a convergence between male and female earnings in the top two deciles of the earnings distribution. At the bottom, where the proportion of women workers has increased most rapidly, the gap remains high and has grown.” (Source: Abraham, Rosa, et al. . *Economic and Political Weekly: Vol. 59(10), 09 Mar, 2024*)

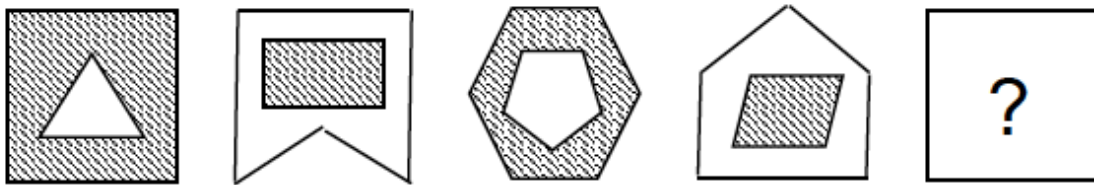
According to the paragraph given above, what key trends have been observed in the workforce regarding women in India post-2004?

- a) There has been a significant decrease in both salaried and non-salaried women workers.

- b) The gender earnings gap has widened significantly at all levels of the earnings distribution.
- c) At the lower end of the earnings distribution the gender earnings gap remains high and has increased; while at the same time the overall raw gender earnings gap has declined.
- d) Education levels for men have declined, leading to a decrease in female participation in the workforce.

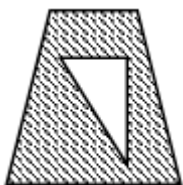
If the government increases funding for high quality early childhood education in low-income areas, what can be reasonably inferred about the potential long-term effects on those communities?

- a) Access to quality education may improve future job prospects and earning potential for children, potentially reducing poverty in the long term.
- b) The immediate poverty rates will decrease overnight.
- c) Families in low-income areas will become reliant on government funding for education.
- d) This funding will not affect the overall economic conditions of the community.

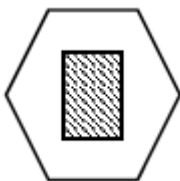


Which of the images below is the next in the sequence?

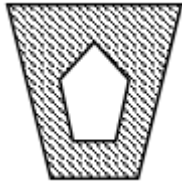
a)



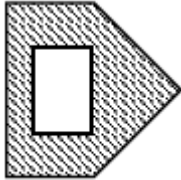
b)



c)



d)



Jyoti's three cousins, Rithu, Mallika and Azad live in different cities in India; Chennai, Mumbai and Udaipur. They all have different jobs; one is a teacher, one is a doctor and one is a farmer.

-Mallika doesn't live in Chennai.

-Azad doesn't live in Mumbai.

-The cousin in Chennai is not a farmer.

-The cousin in Mumbai is a doctor.

-Azad is not a teacher.

Given this information, where does Rithu live and what is her occupation?

- a) Chennai, Teacher
- b) Mumbai, Doctor
- c) Udaipur, Farmer
- d) Udaipur, Teacher

*5. This question is a statement and conclusion type question where you are given a statement followed by a set of conclusions for the same. Candidates need to choose the most appropriate conclusion regarding the statement given.*

**Statement:** The adoption of renewable energy sources, such as solar and wind power, has been increasing globally due to their environmental benefits and decreasing costs. Governments are also implementing policies to promote clean energy technologies, aiming to reduce greenhouse gas emissions and dependence on fossil fuels.

### Conclusions:

1. The transition to renewable energy is driven by economic factors as well as environmental concerns.
2. Renewable energy sources will completely eliminate the need for fossil fuels in the near future.
3. Government policies play a significant role in facilitating the growth of renewable energy.

Which of the following conclusions logically follows from the statement?

- a) Only conclusion 1 is valid.
- b) Only conclusion 3 is valid.
- c) Both conclusions 1 and 3 are valid.
- d) All conclusions (1, 2, and 3) are valid.

Consider a consumer who spends a half of their income on food. Which of the following statements about the magnitude of price elasticity and income elasticity of demand for food is true?

- a) Price elasticity of demand is 1, but income elasticity of demand can be any number between 0 and 1.
- b) Income elasticity of demand is 1, but price elasticity of demand can be any number between 0 and 1.
- c) Both Price elasticity and income elasticity of demand are 1.
- d) Both Price elasticity and income elasticity of demand can be any number between 0 and 1.

A Cobb-Douglas production function is given by:  $Q = AL^\beta K^\alpha$

where:

- Q is the total output,
- L is the quantity of labor,
- K is the quantity of capital,
- A is a constant (total factor productivity),
- $\alpha$  and  $\beta$  are the output elasticities of capital and labor, respectively.

If the production function exhibits increasing returns to scale, which of the following statements is correct?

- a)  $\alpha = 1 - \beta$
- b)  $\alpha > 1 - \beta$
- c)  $\alpha < 1 - \beta$
- d)  $\alpha = \beta = 0.5$

Consider two consumers Akbar and Salma in a two-good economy (x and y). Their respective utility functions are given by:

$$U^A = x^4y$$

$$U^S = xy^{0.25}$$

What can we say about Akbar and Salma's relative preferences for goods x and y?

- a) Akbar has a stronger preference for good x over y compared to Salma.
- b) Salma has a stronger preference for good x over y compared to Akbar.
- c) We cannot compare the relative preferences of the two consumers.
- d) Akbar and Salma's relative preferences for goods x and y are the same.

The table represents market demand Q for a good, at different prices P.

Q	100	200	300	400	500	600	700	800	900
P	270	240	210	180	150	120	90	60	30

The firm's unit cost of production is ₹60. Based on this information, which of the following is correct?

- a) The profit-maximizing output is  $Q = 500$ .
- b) The maximum profit that can be attained is ₹50,000.
- c) The firm will make a loss at all outputs of 800 and above.
- d) None of the above

Due to a drought, the supply of wheat decreased. What effect will this situation most likely have on the demand curve for wheat in the market?

- a) The demand curve will shift to the right.
- b) The demand curve will shift to the left.
- c) The demand curve will remain unchanged, but the equilibrium price will increase.
- d) The demand curve will shift such that the equilibrium quantity remain same.

Consider an economy where a government is concerned with income inequality. The government is considering two policy options:

- o Policy 1: No intervention, allowing the market to operate freely.
- o Policy 2: The government imposes a progressive tax system and redistributes the revenue equally among all households.

Which of the following statements is most accurate?

- a) The final allocation will always be the same across Policy 1 and 2.

- b) In general, both policies will give different allocations but they will be equitable.
- c) Policy 1 will ensure both efficiency and equity.
- d) In general, both policies will give different allocations but they will be efficient.

Which of the following statements best describes the characteristics of an oligopoly market structure?

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- b) Firms sell identical products, and entry into the market is easy.
- c) A few firms dominate the market and can influence prices.
- d) Many firms sell differentiated products, and there are few barriers to entry.

Which of the following is a characteristic of a private good?

- a. It is excludable and rivalrous.
- b. It is non-excludable and non-rivalrous.
- c. It is provided only by the government.
- d. It leads to market failure due to excessive competition.

Negative externalities are associated with which of the following?

- a) Consuming a pizza for oneself
- b) Smoking in a public area
- c) Listening to music wearing headphones
- d) Walking in a public park

In game theory, a situation in which both firms can gain without any loss to the other is called a

- a) Non zero-sum game.
- b) Prisoners' dilemma.
- c) Zero-sum game.
- d) Cartel temptation.

## Section 2: Macroeconomics

Which of the following items is included in the calculation of Gross Domestic Product (GDP)?

- a) The value of goods and services produced by a country's residents
- b) The value of used cars sold in a market transaction
- c) Government spending on infrastructure
- d) The value of unpaid household work

Which of the following statements best describes the effect of currency appreciation on a country's economy?

- a) It makes imports cheaper and exports more expensive.
- b) It increases the purchasing power of consumers for foreign goods.
- c) It leads to a decrease in inflation rates.
- d) It makes exports cheaper and imports more expensive.

Consider a closed economy without government, where output ( $Y$ ) is the sum of consumption ( $C$ ) and autonomous investment ( $I$ ). The consumption function is given by  $C=A+bY(1-t)$  where:

- Autonomous consumption ( $A$ ) = 300
- Marginal propensity to consume ( $b$ ) = 0.6
- Tax rate ( $t$ ) = 0.3
- Autonomous investment ( $I$ ) = 50

What is the equilibrium output ( $Y$ ) in this economy?

- a) 500
- b) 600
- c) 700
- d) 800

Consider a closed economy within a simple Keynesian model. The interest rate is exogenously given, and there is no government sector. The marginal consumption propensity (MPC) is 0.8. If investment expenditure rises by 1 unit, output rises by

- a) 1 unit
- b) 2 units
- c) 3 units
- d) 5 units

The government increases expenditure by increasing lump-sum tax by the same amount. The value of this balanced budget multiplier is

- a) 1
- b) less than 1
- c) greater than 1
- d) 0

Which of the following are correct about changes in tax rates, changes in the level of government expenditures, and changes in the money supply?

- a) They are all controlled by the central bank
- b) They are tools of discretionary fiscal policy
- c) They are automatic stabilizers
- d) They have different lag times between the implementation of a policy and its effect on aggregate demand

The central bank of a country sets the interest rate for inflation targeting. If the central bank wants to increase the inflation rate, then it will

- a) Increase interest rate
- b) Reduce interest rate
- c) Devalue nominal exchange rate
- d) Keep interest rate unchanged

Which of the following would cause the aggregate demand curve to shift to the right?

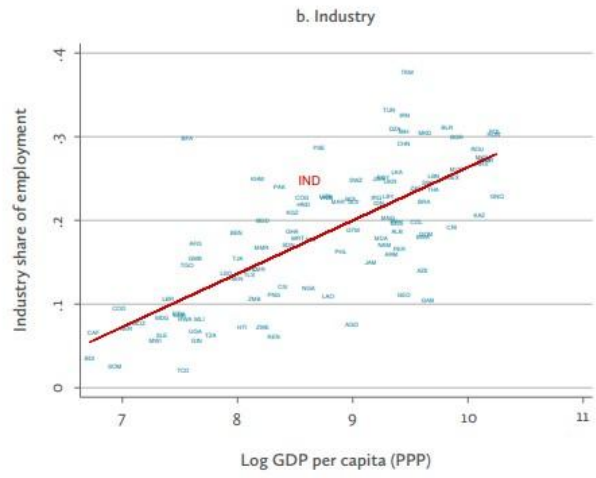
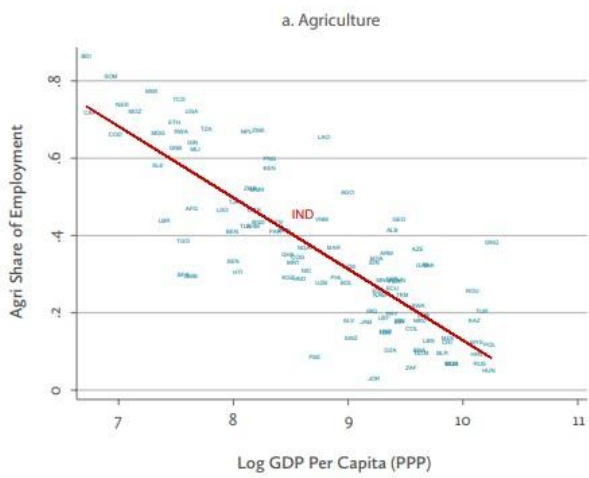
- a) An increase in the population
- b) An increase in net exports
- c) An increase in taxes
- d) An increase in government spending

Which of the following statements is true about a trade deficit country?

- a) Net Exports are negative
- b) Net Capital Outflow Must be Positive
- c) Exports exceed imports
- d) Change in foreign exchange reserves is positive

An increase in inflation and unemployment at the same time could be explained by which of the following?

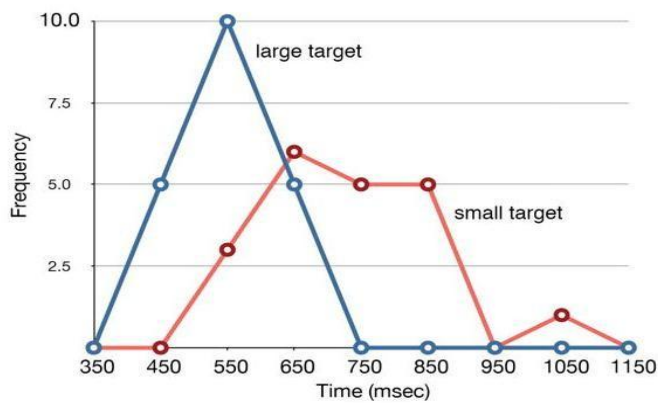
- a) Expansionary Monetary Policy: Lower interest rates
- b) Expansionary Fiscal Policy: Increased government spending on infrastructure or social programs.
- c) Global Economic Conditions: Unfavorable global economic conditions, such as higher commodity prices or decreased exports, accompanied by weak demand for labor.
- d) Supply-Side Factors: Decline in productivity or decline in the supply of goods



The figure shows a scatter plot of shares of employment in (a) Agriculture and (b) Industry against the country's Log GDP per capita.

Which of the following best describes the correlation between share of employment and Log GDP per capita for Agriculture and Industry respectively.

- a) +1 ; -1
- b) +0.6; - 0.5
- c) -1 ; +1
- d) -0.55 ; + 0.54



An experiment was conducted in which the participants were given a task to move a computer cursor to a target area on the screen. On 20 of the trials, the target area was a

large rectangle; and on the other 20 trials, the target area was a small rectangle. Time (in milli-seconds) to reach the target was recorded on each trial. The two distributions (one for each target) are plotted together in the figure.

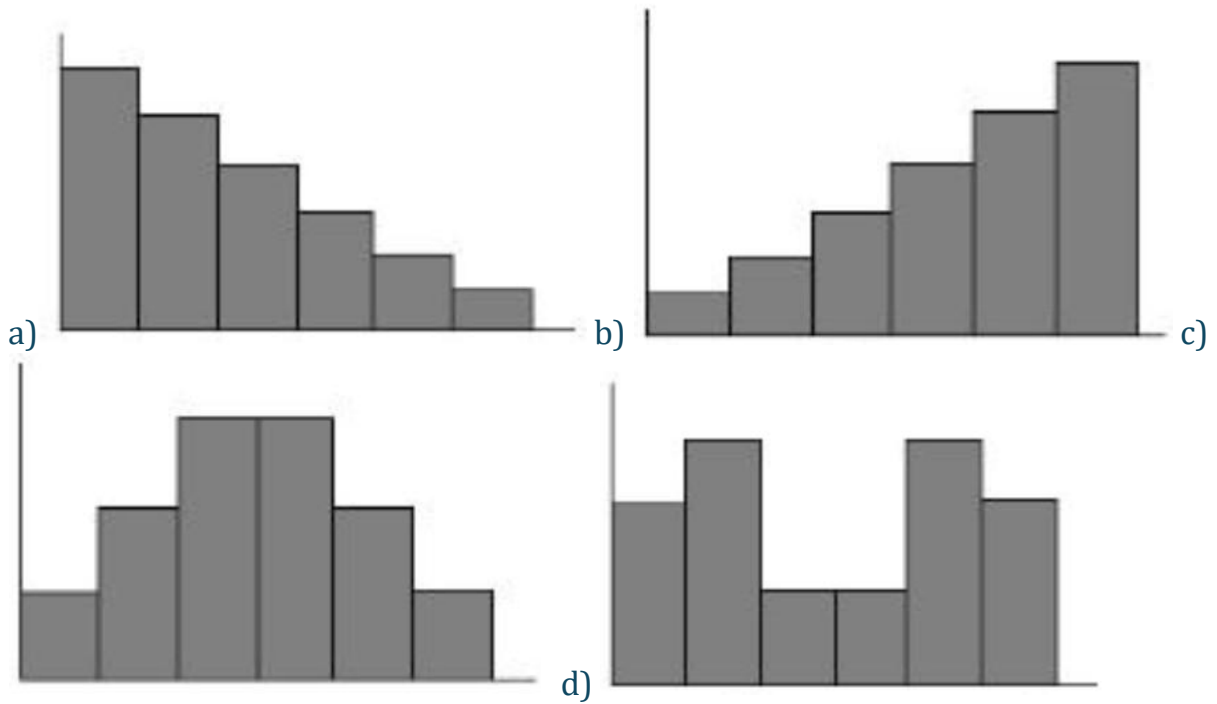
What is the average time taken to complete the task in large target and small target respectively?

- a) 550 msec and 550 msec
- b) 550 msec and 650 msec
- c) 500 msec and 750 msec
- d) None of the above

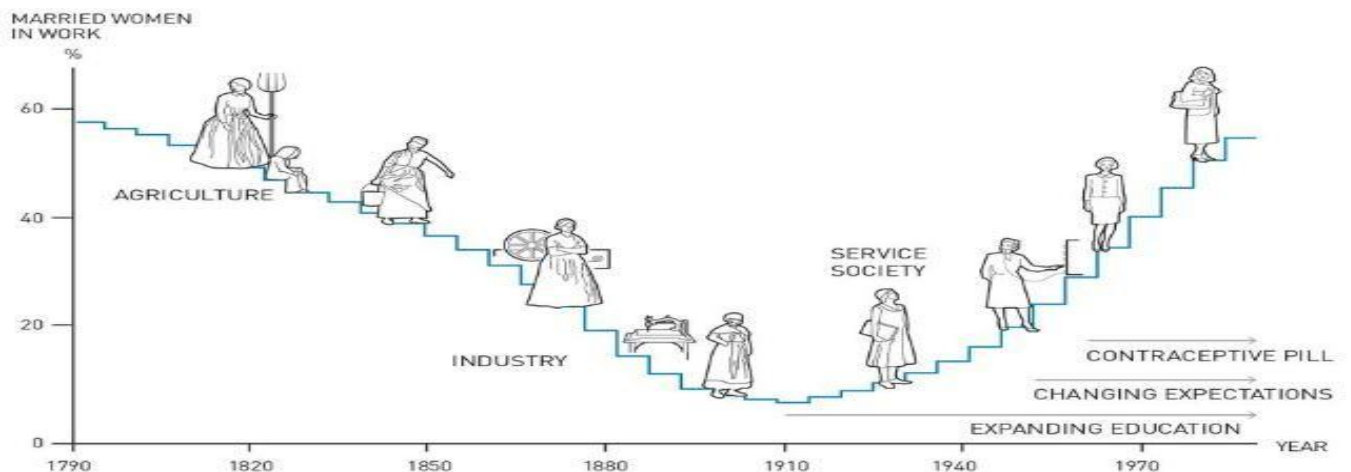
In a class of 25 students, the average age of the students is 16 years. The age of the teacher is 40 years. What would be the average age of the class if we include all students and the teacher as part of the class?

- a) 16 years
- b) 17 years
- c) 18 years
- d) 40 years

In which of the following distributions, the mean value of observations is less than the median value?



The following graph shows the type of work married women have engaged in over time, with some specific historical events.



Based on the above figure, which of the following statements is true?

- Growth of the agriculture sector led to the decline of married women working.
- The industrial revolution increased women's participation in employment.
- The expansion of education is positively correlated with the rise in married women's participation in work.
- The growth of the service sector is associated with the decline of married women in work.

A histogram illustrates the distribution of annual incomes for a sample of 50 households in a city. The income ranges and their corresponding frequencies are as follows:

- ₹0 - ₹2,00,000: 5 households
- ₹2,00,001 - ₹4,00,000: 10 households
- ₹4,00,001 - ₹6,00,000: 15 households
- ₹6,00,001 - ₹8,00,000: 10 households
- ₹8,00,001 - ₹10,00,000: 5 households
- Over ₹10,00,000: 5 households

Based on this histogram, which of the following conclusions is most accurate?

- a) Most households earn more than ₹6,00,000 annually.
- b) The income distribution is skewed towards higher incomes.
- c) The largest group of households falls within the ₹4,00,001 - ₹6,00,000 range.
- d) There are no households with an income below ₹2,00,000.

A. 

B. 

Choose the appropriate match of the data and histograms given:

- I. Height of individuals in a country
- II. Age of Individuals who died of a natural cause

- a) I - A; II- B
- b) I - A; II- A
- c) I - B; II- B
- d) I - B; II- A

In the previous year, the Consumer Price Index (CPI) in India was reported as follows:

CPI at the beginning of the year: 160

CPI at the end of the year: 176

What is the inflation rate for the last year?

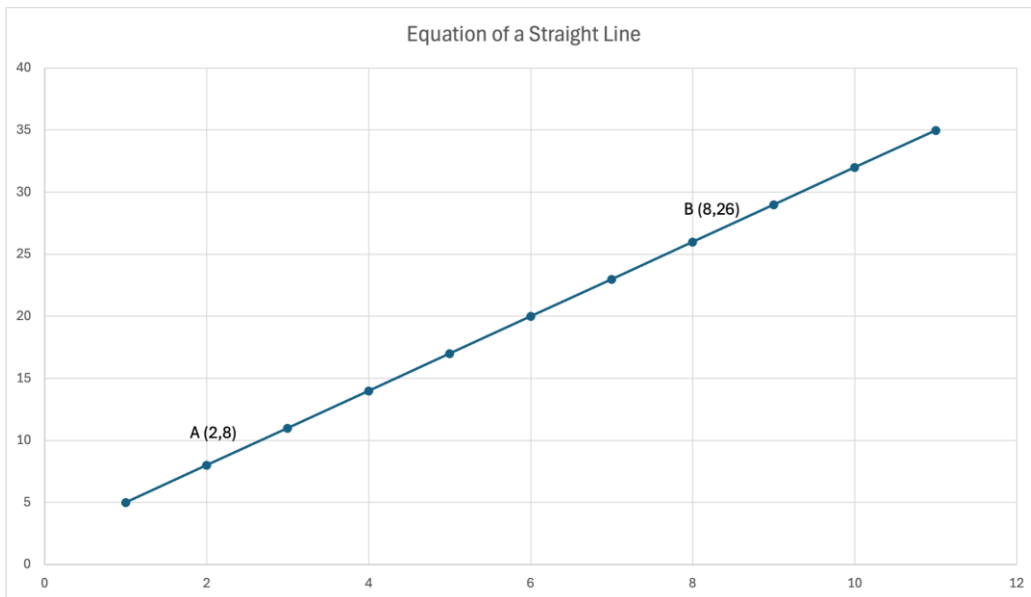
- a. 10%
- b. 12%
- c. 15%
- d. 20%

The table displays the data on Nominal GDP and Population for a country, for the year 2010 and 2020.

Year	Nominal GDP	GDP Deflator	Population
2010	6000	120	12
2020	7200	150	12

What is the real GDP per capita in 2020?

- a) 400
- b) 420
- c) 440
- d) 460



Given points A and B on a straight line in the figure, determine the equation of the line passing through these points. Use the coordinates of points A and B to find the slope and intercept.

- a)  $y = 3x+3$
- b)  $y = 3x+5$
- c)  $y = 3x+2$
- d)  $y = 3x$

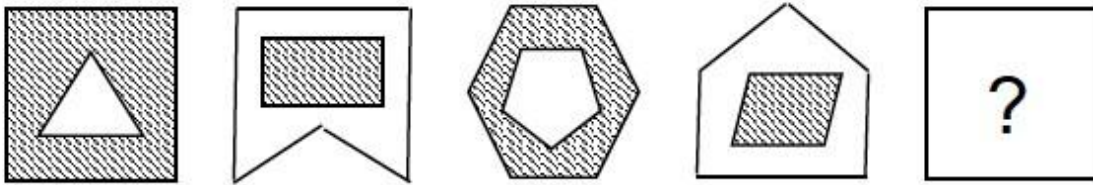
“Much attention has been focused on the exit of women from the workforce during the high growth period post-2004. However, alongside this exit, the same period also saw a rapid increase in the proportion of salaried workers among those women who continued to remain in the workforce. Simultaneously, education levels have risen rapidly for both men and women. In this paper, we examine the long-run changes in the gender earnings gap among salaried workers in India. We draw on five rounds of the National Sample Survey Office quinquennial Employment– Unemployment Surveys and two rounds of the Periodic Labour Force Survey to show that the raw gender earnings gap has narrowed in this period. But most of this is due to a convergence between male and female earnings in the top two deciles of the earnings distribution. At the bottom, where the proportion of women workers has increased most rapidly, the gap remains high and has grown.” (Source: Abraham, Rosa, et al. . *Economic and Political Weekly: Vol. 59(10), 09 Mar, 2024*)

According to the paragraph given above, what key trends have been observed in the workforce regarding women in India post-2004?

- a) There has been a significant decrease in both salaried and non-salaried women workers.
- b) The gender earnings gap has widened significantly at all levels of the earnings distribution.
- c) At the lower end of the earnings distribution the gender earnings gap remains high and has increased; while at the same time the overall raw gender earnings gap has declined.
- d) Education levels for men have declined, leading to a decrease in female participation in the workforce.

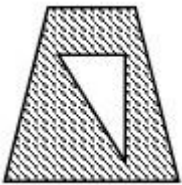
If the government increases funding for high-quality education in low-income areas, what can be reasonably inferred about the potential long-term effects on those communities?

- a) Access to quality education may improve future job prospects and earning potential for children, potentially reducing poverty in the long term.
- b) The immediate poverty rates will decrease overnight.
- c) Families in low-income areas will become reliant on government funding for education.
- d) This funding will not affect the overall economic conditions of the community.

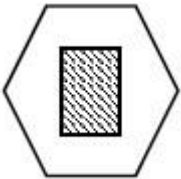


Which of the images below is the next in the sequence?

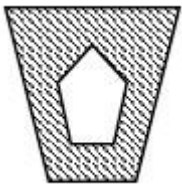
a)



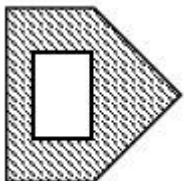
b)



c)



d)



Ravi's three cousins, Priya, Anil, and Deepa, live in different cities in India; Delhi, Bangalore, and Hyderabad. They all have different jobs; one is a teacher, one is a doctor, and one is an engineer.

- Priya doesn't live in Delhi.
- Anil doesn't live in Bangalore.
- The cousin in Delhi is not an engineer.
- The cousin in Bangalore is a doctor.
- Anil is not a teacher.

Given this information, where does Deepa live and what is her occupation?

- a) Delhi, Teacher
- b) Bangalore, Doctor
- c) Hyderabad, Engineer
- d) Hyderabad, Teacher

This is a statement and conclusion type question where you are given a statement followed by a set of conclusions for the same. Choose the most appropriate conclusion regarding the statement given.

Statement: The adoption of renewable energy sources, such as solar and wind power, has been increasing globally due to their environmental benefits and decreasing costs. Governments are also implementing policies to promote clean energy technologies, aiming to reduce greenhouse gas emissions and dependence on fossil fuels.

Conclusions:

1. The transition to renewable energy is driven by economic factors as well as environmental concerns.
2. Renewable energy sources will completely eliminate the need for fossil fuels in the near future.
3. Government policies play a significant role in facilitating the growth of renewable energy.

Which of the following conclusions logically follows from the statement?

- a) Only conclusion 1 is valid.
- b) Only conclusion 3 is valid.
- c) Both conclusions 1 and 3 are valid.
- d) All conclusions (1, 2, and 3) are valid.