

30

QUESTION PAPER
SERIES CODE

A

Registration No. :

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Centre of Exam. : _____

Name of Candidate : _____

Signature of Invigilator

ENTRANCE EXAMINATION, 2015

M.A. ECONOMICS

[Field of Study Code : ECOM (216)]

Time Allowed : 3 hours

Maximum Marks : 100




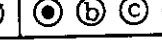
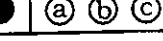
INSTRUCTIONS FOR CANDIDATES

Candidates must read carefully the following instructions before attempting the Question Paper :

- (i) Please write your Name and Registration Number in the space provided for the purpose on the top of this Question Paper and in the Answer Sheet.
 - (ii) **Please darken the appropriate Circle of the Question Paper Series Code on the Answer Sheet.**
 - (iii) All questions are compulsory.
 - (iv) Answer all the questions in the Answer Sheet provided for the purpose by darkening the correct choice, i.e., (a) or (b) or (c) or (d) with a BALLPOINT PEN only against the corresponding circle. Any overwriting or alteration will be treated as wrong answer.
 - (v) Each correct answer in Section—A carries 1 mark and each correct answer in Section—B carries 2 marks.
 - (vi) **There will be negative marking and for each wrong answer, $\frac{1}{4}$ mark would be deducted for 1 mark questions and $\frac{1}{2}$ mark would be deducted for 2 marks questions.**
 - (vii) Answer written by the candidates inside the Question Paper will not be evaluated.
 - (viii) Pages at the end have been provided for Rough Work.
 - (ix) Simple calculators may be used for calculations.
 - (x) Return the Question Paper and Answer Sheet to the Invigilator at the end of the Entrance Examination.
- PLEASE DO NOT FOLD THE ANSWER SHEET.**

INSTRUCTIONS FOR MARKING ANSWERS

1. Use only Blue/Black Ballpoint Pen (do not use pencil) to darken the appropriate Circle.
2. Please darken the whole Circle.
3. Darken ONLY ONE CIRCLE for each question as shown in example below :

| Wrong | Wrong | Wrong | Wrong | Correct |
|---|---|---|--|---|
|  |  |  |  |  |

4. Once marked, no change in the answer is allowed.
5. Please do not make any stray marks on the Answer Sheet.
6. Do rough work only on the pages provided for this purpose.
7. Mark your answer only in the appropriate space against the number corresponding to the question.
8. **Ensure that you have darkened the appropriate Circle of Question Paper Series Code on the Answer Sheet.**

Section—A

Each question carries 1 mark

1. If a country's nominal GDP is constant, then which of the following statements about it would be correct?
 - (a) It is impossible for the real per capita GDP to rise in such circumstances.
 - (b) The real per capita GDP can rise if and only if the country's population is shrinking *and* prices are falling.
 - (c) For the real per capita GDP to rise, it is sufficient that the price level should decline.
 - (d) It is possible for real per capita GDP to rise even if the country's population is increasing.

2. The GDPs (at factor cost) and population sizes of two countries A and B were identical in a particular year. Which of the following statements is then necessarily true for that year?
 - (a) A and B had identical per capita incomes.
 - (b) A and B were equally wealthy countries.
 - (c) A and B had identical levels of labour productivity.
 - (d) Neither of the three—(a), (b) and (c) need be the case.

3. If in an economy all production is undertaken by firms and the recorded sales of all firms in a year are less than their respective recorded costs, then which of the following statements is necessarily true?
 - (a) At least some firms must have made accounting errors.
 - (b) The economy's GDP of that year was negative.
 - (c) The total purchases of intermediates by firms were more than their total sales.
 - (d) Neither of the above

4. The two largest net exporters of capital in the world in recent years have been
 - (a) Germany and Japan
 - (b) Germany and China
 - (c) China and Saudi Arabia
 - (d) China and Russia

5. If X_1, X_2, \dots, X_n are non-negative real numbers, then their
- arithmetic mean \leq geometric mean
 - geometric mean \leq arithmetic mean
 - arithmetic mean $= 0.5$ (geometric mean)
 - There is no fixed relationship between arithmetic mean and geometric mean
6. Let $f(x) = (\log(x)) / x$, where $0 < x < 1$. Then for all x such that $0 < x < 1$
- $f'(x) < 0$
 - $f'(x) > 0$
 - $f'(x) > 0$, if $0 < x < 0.5$ and $f'(x) < 0$, if $0.5 \leq x < 1$
 - Can't say anything about the sign of $f'(x)$
7. The binomial theorem states that
- $(x+a)^n = \sum_{k=0}^n \binom{n}{k} x^k a^{n-k}$
 - $(x+a)^n = \sum_{k=0}^n \binom{n}{k} x^k a^{n-k} + x^k / a^{n-k}$
 - $(x+a)^n = \sum_{k=0}^n \binom{n}{k} x^k a^{n-k} - x^k / a^{n-k}$
 - None of the above
8. The gross fiscal deficit is
- total expenditure less total revenue receipts
 - total borrowings less repayment of past debt
 - revenue expenditures less total revenue receipts
 - total expenditure less payment of interest
9. The primary deficit refers to
- the deficit in the primary sector of the economy
 - the deficit in the revenue account of the budget
 - the deficit in the capital account of the budget
 - the fiscal deficit less the interest outgo in the budget

10. If the fiscal deficit of an economy be 3% of GDP and if the current account deficit also be 3% of GDP in a particular year for that economy, then its aggregate saving must be equal to aggregate investment. The above statement is
- (a) true
 - (b) false
 - (c) not necessarily true
 - (d) not necessarily false
11. If some individual gets ₹ 3,000 as her wage on the first day of every month and if she spends exactly ₹ 100 everyday and exhausts all her money by the end of the month, then what would be her approximate average money holding throughout the year?
- (a) ₹ 3,000
 - (b) ₹ 36,000
 - (c) ₹ 18,000
 - (d) ₹ 1,500
12. The theory of comparative advantage in a two-country, two-commodity world can only work if
- (a) labour and capital are mobile
 - (b) labour is mobile and capital is not
 - (c) both capital and labour are mobile
 - (d) both capital and labour are not mobile
13. Current account transactions of a country include
- (a) exports and imports of goods
 - (b) exports and imports of goods and invisibles, including services
 - (c) exports and imports of goods and invisibles and capital flows
 - (d) exports and imports of goods and invisibles and foreign exchange reserves
14. In the long run, the steady state rate of growth of a capitalist economy
- (a) falls with the savings propensity
 - (b) rises with the incremental capital output ratio
 - (c) rises with the savings propensity but falls with the incremental capital output ratio
 - (d) falls with the savings propensity but rises with the incremental capital output ratio

15. Accelerator and multiplier stand for
- (a) the same thing and lead to an increase in output of the economy
 - (b) the same thing and cause an increase in investment with increase in output
 - (c) different things with the first causing a change in investment due to a change in output and the second causing a change in output due to a change in investment
 - (d) different things with the first causing a change in output due to a change in investment and the second causing a change in investment due to a change in output
16. In practice most free trade agreements between two countries are designed to
- (a) eliminate tariffs
 - (b) eliminate tariffs and other non-tariff measures
 - (c) fully liberalize trade in goods and services
 - (d) include free movement of all goods and factors
17. Under the Bretton Woods system
- (a) dollar and gold were both used in international transactions
 - (b) dollar and Special Drawing Rights issued by the International Monetary Fund were both used as international currencies
 - (c) only Special Drawing Rights were used
 - (d) dollar was recognized as the international reserve currency
18. If the exchange rate of some economy depreciates vis-à-vis US \$ and if the Marshall-Lerner condition is satisfied, then the current account deficit of that economy is expected to
- (a) increase
 - (b) decrease
 - (c) remain the same
 - (d) can't say
19. The scatter plot of X and Y
- (a) gives little information about the actual values
 - (b) requires that a linear regression be calculated and displayed
 - (c) indicates causal direction since X is the independent variable
 - (d) has none of the above characteristics

20. A distribution of 6 scores has a median of 21. If the highest score increases 3 points, the median will become
- (a) 21
 - (b) 21.5
 - (c) 24
 - (d) Cannot be determined without additional information
21. Suppose that the exchange rate of the Indian rupee appreciates by 10 percent relative to the currencies of India's trading partners. Over the same period, inflation in India is 8 percent compared to 3 percent inflation in the trading partners. What is the change in India's real exchange rate?
- (a) 5 percent appreciation
 - (b) 10 percent appreciation
 - (c) 15 percent appreciation
 - (d) 5 percent depreciation
22. Consider the following statement :
- "For most of the period when it was under British Crown rule, India had an export surplus and yet its foreign liabilities increased."
- Which of the following can be said about this statement?
- (a) This is correct
 - (b) This was true only for the period of Company rule
 - (c) This is logically impossible
 - (d) This is logically possible but factually incorrect
23. Which of the following statements is the only correct one?
- (a) India's per capita GDP in PPP terms is lower than that of Sri Lanka and Pakistan.
 - (b) India's per capita GDP in PPP terms is higher than that of Sri Lanka and Pakistan.
 - (c) India's per capita GDP in PPP terms is higher than that of Sri Lanka but lower than that of Pakistan.
 - (d) India's per capita GDP in PPP terms is lower than that of Sri Lanka but higher than that of Pakistan.

24. The aggregate population of the G7 countries is
- (a) less than that of either China or India
 - (b) higher than that of China or India
 - (c) higher than India's but less than China's
 - (d) approximately the same as India's
25. Life Insurance was nationalized in India in
- (a) 1947
 - (b) 1950
 - (c) 1956
 - (d) 1973
26. If x is any real number, then
- (a) $e^x = 1 + \frac{x}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots$
 - (b) $e^x = x + 1 + \frac{x}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots$
 - (c) $e^x = x^2 + 1 + \frac{x}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots$
 - (d) $e^x = x^3 + 1 + \frac{x}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots$
27. Which of the following statements is (in general) true?
- (a) Marginal Cost (MC) is minimized where $MC = \text{Average Variable Cost (AVC)}$.
 - (b) Average Total Cost (ATC) is maximized where $MC = ATC$.
 - (c) Average Variable Cost (AVC) is minimized where $MC = AVC$.
 - (d) Total Revenue is maximized where $MC = \text{Marginal Revenue (MR)}$.

28. If population A has a larger standard deviation than population B
- (a) population A will have a greater range than B
 - (b) population A will have a smaller range than B
 - (c) population A will be more skewed than B
 - (d) we cannot say which population has the greater range or skewness
29. If you are told a population has a mean of 25 and a variance of 0, what must you conclude?
- (a) Someone has made a mistake
 - (b) There is only one element in the population
 - (c) There are no elements in the population
 - (d) All the elements in the population are 25
30. One card is drawn from a standard 52-card deck. In describing the occurrence of two possible events, an Ace and a King, these two events are said to be
- (a) independent
 - (b) mutually exclusive
 - (c) random variables
 - (d) randomly independent

Answer Question Nos. 31-35 in the light of the passage given below :

"A multiplicity of manufacturing activities will make a kingdom or city abound in money when they are diverse and produce things necessary or useful or pleasing to people in quantities that exceed the needs of the country. There are four reasons why this is so.

First, there is greater certainty in manufacturing activity, for a manufacturer is more certain to earn from his work than a farmer or other person who tills the soil or deals in his agricultural produce, for the earnings of these people depend not just on human labour but on the weather—since the land sometimes needs rain, and sometimes sun—as well as other conditions. And if these conditions are not forthcoming or the weather is bad, their work is wasted and instead of making money they lose it. But a manufacturer's earnings are always certain, provided that he keeps working.

Second, in manufacturing activities it is possible to achieve a multiplication of products, and therefore of earnings. The same cannot be done with agricultural produce, which is not subject to multiplication. If a given piece of land is only large enough to sow a hundred (bushels) of wheat, it is impossible to sow a hundred and fifty there. In manufacturing, by contrast, production can be multiplied not merely twofold but a hundredfold, and at a proportionately lower cost.

Third, the sale of manufactured products is more certain than that of agricultural produce, and this certainty of sale means a greater certainty of profit. For it is difficult to preserve agricultural produce for a long time without its deteriorating, so it is risky to export from country to another one far away; and it is also risky to preserve it for the future, should it not be sold immediately. Manufactured products, on the other hand, can easily be preserved even for long periods, so they can easily be exported to far off lands. And since navigation—the only art in which the moderns surpass the ancients—has been so greatly facilitated that trade is carried on not merely between east and west and north and south, but even between one hemisphere and the other, and goods can be easily transported from one to the other, who will deny that the sale of manufactured products is more certain and more profitable than that of agricultural produce?

Fourth and last, manufactured goods generally yield much higher earnings than agricultural produce. ... For all these reasons the accident of a multiplicity of manufacturing activities is more important than that of domestic agricultural surplus."

(From Antonio Serra—*A Short Treatise on the Wealth and Poverty of Nations*, 1613)

31. There is greater certainty in manufacturing activities than in agriculture because

- (a) it is subject to increasing returns
- (b) it relies only on human labour
- (c) the manufacturing worker must always keep working
- (d) manufacturing products are diverse

32. Manufacturing offers the possibility of more likely profit than agriculture because

- (a) the variety of manufacturing products is greater than the variety of agricultural produce
- (b) it used to be risky to export from one country to another country that is far away
- (c) both storage and transport are easier for manufactured goods
- (d) manufacturing products are diverse

33. Serra believed that

- (a) agriculture and manufacturing are both subject to increasing returns
- (b) only manufacturing is subject to increasing returns
- (c) neither activity is subject to increasing returns
- (d) increasing returns are not relevant in a discussion of economic activity

34. The significance of advances in navigation for Serra is that
- (a) it enables improved transport of agricultural produce to make up for losses when the weather is bad
 - (b) it proves that the moderns have surpassed the ancients
 - (c) it gets rid of the difficulty of preserving goods for the future
 - (d) it makes profits from manufacturing more certain by expanding potential markets
35. According to Serra, manufacturing
- (a) generates higher value added than agriculture
 - (b) is desirable only when the quantities produced exceed the needs of the country
 - (c) is always in a multiplicity that exceeds the agricultural surplus
 - (d) always makes a kingdom or a city abound in money

Answer Question Nos. 36–38 on the basis of the information given below :

A salesman visits only five different cities—Pune, Bengaluru, Chandigarh, Bhopal and Lucknow. Every year the salesman visits exactly three cities according to the following restrictions :

If the salesman visits Bengaluru, the salesman also visits Pune that year.

If the salesman visits Chandigarh one year, the salesman does not visit it the next year.

In any year, the salesman visits no more than one of the cities he visited in the previous year.

36. Which of the following is a possible sequence of combinations for the salesman to visit in two successive years?
- (a) Year 1 : Pune, Bengaluru, Chandigarh; Year 2 : Bengaluru, Bhopal, Lucknow
 - (b) Year 1 : Pune, Bengaluru, Bhopal; Year 2 : Pune, Bengaluru, Lucknow
 - (c) Year 1 : Pune, Bhopal, Lucknow; Year 2 : Pune, Bengaluru, Chandigarh
 - (d) Year 1 : Bengaluru, Bhopal, Lucknow; Year 2 : Pune, Chandigarh, Bhopal

37. If the salesman visits Pune, Bengaluru and Chandigarh in the first year, which of the following combinations must be visited in the third year?
- Pune, Bengaluru and Chandigarh
 - Pune, Bengaluru and Bhopal
 - Pune, Chandigarh and Bhopal
 - Chandigarh, Bhopal and Lucknow
38. If the salesman visits Pune, Lucknow and Bhopal in the first year, which of the following combinations must be visited in the eleventh year?
- Pune, Lucknow and Bhopal
 - Pune, Bengaluru and Bhopal
 - Pune, Chandigarh and Bhopal
 - Chandigarh, Bhopal and Lucknow

Answer Question Nos. 39 and 40 on the basis of the table below pertaining to an economy :

| Year 1 | Year 2 | ⇐ Year / Item | |
|---------|---------|---------------|---|
| 3353748 | 3864617 | 1 | Final consumption expenditure |
| x_a | 1821099 | 2 | Gross fixed capital formation |
| 255126 | 179004 | 3 | Change in stocks |
| 1018907 | 1328765 | 4 | Exports of goods and services |
| 1219109 | 1614040 | 5 | Imports of goods and services |
| 5050345 | x_b | 6 | Gross domestic product at market prices |

39. The value of x_a has to be
- 1896799
 - 1641673
 - 1751521
 - 2151924
40. The value of x_b has to be
- 5579445
 - 5400441
 - 6149995
 - 5970991

Section—B

Each question carries 2 marks

41. An economy's output in year 0 is 10 percent below its maximum potential output and the maximum potential output steadily increases at the rate of 5 percent per annum after that. In such circumstances, for how many years would it be possible for that economy to maintain a 6 percent per annum rate of growth of actual output?
- (a) Not possible at all
 - (b) 5 years
 - (c) 11 years
 - (d) 15 years
42. In the fixed price IS-LM model, which of the following is true if we compare the effects of an **increase** in government expenditure (X) with that of a **reduction** in money supply (Y)?
- (a) Both will result in an increase in output but while X will be accompanied by a rise in the interest rate Y will reduce the interest rate
 - (b) X and Y will have opposite effects on output but the same effect on the interest rate
 - (c) X and Y will have the same effect on output but opposite effects on the interest rate
 - (d) X will have an adverse effect on output because it will raise the level of the fiscal deficit while Y will result in an increase in output by reducing the interest rate
43. Consider a Cournot duopoly in a homogeneous product market where firm 1's output is x and firm 2's output is y . The inverse demand function is given by $P = e^{-(x+y)}$. Costs are zero for all levels of output for both firms. At a Cournot equilibrium
- (a) each firm produces one unit of output
 - (b) each firm produces two units of output
 - (c) firm 1 produces one unit of output and firm 2 produces two units of output
 - (d) there is no Cournot equilibrium
44. Let $f(x)$ be a differentiable function defined over the interval $[0, 2]$. It is given that $f(0) = 1$ and $f(x) \leq 0 \rightarrow f'(x) > 0$. Then
- (a) $f(x) < 0$ for some x in the interval $(0, 2]$
 - (b) $f(x) \geq 0$ for all x in the interval $[0, 2]$
 - (c) $f(x) = 0$ for all x in the interval $[0, 1]$
 - (d) $f(x)$ is strictly positive for all $0 < x < 1$ and $f(x)$ is strictly negative for all $1 < x < 2$

45. A monopolist faces the following demand function $D(P)$:

$$D(P) = 10 \text{ for } P \text{ in the interval } [0, 10]$$

$$= 20 - P \text{ for } P \text{ in the interval } (10, 20)$$

$$= 0 \text{ for } P \text{ in the interval } [20, \infty)$$

Now suppose that the monopolist has zero variable cost of production. However, if it produces any positive amount, it must incur a fixed cost of ₹ 50. What is the optimal monopoly price?

- (a) 15
 - (b) 10
 - (c) 5
 - (d) There is no monopoly equilibrium
46. If you maximize $f(x) = 2/x^3$, subject to $0 < x < 1$, then the maximum value of $f(x)$ is obtained at
- (a) 0
 - (b) 1
 - (c) $1/2$
 - (d) $f(x)$ has no maxima for the case $0 < x < 1$
47. In the Simple Keynesian model, if an increase in the level of investment is accompanied by a reduction in the propensity to save, the combined effect of these would be
- (a) an increase in the levels of savings and output
 - (b) an increase in the level of savings but a reduction in the level of output
 - (c) a reduction in savings but an increase in output
 - (d) either a reduction or an increase in savings but a definite increase in output
48. In the AD-AS model, the level of aggregate demand can influence the level of output
- (a) if and only if aggregate supply has a positive relationship with the price level
 - (b) if and only if the price level is constant
 - (c) if and only if aggregate supply is not invariant with changes in the price level
 - (d) if and only if aggregate supply is invariant with changes in the price level
49. If you integrate $e^x + xe^x$ over the interval $[0, 1]$, you get
- (a) 1
 - (b) 0
 - (c) $\frac{1}{2}$
 - (d) e^1

50. Which of the following functions has a degree of homogeneity not equal to unity?
- $Q = 100K^{1/4}L^{3/4}$
 - $Q = 20K^{0.5}L^{0.5}$
 - $Q = K^2 + 2KL + L^2$
 - $Q = (K^2 + 2KL + L^2)^{1/2}$
51. Suppose a consumer's preferences over commodities 1 and 2 can be represented by the utility function $U(x_1, x_2) = \min\{x_1, x_2\} + \max\{x_1, x_2\}$, where $x_1, x_2 \geq 0$. The prices of the two commodities are 1 and 2 respectively and the consumer's income is 150. Which of the following is true?
- At the optimum, the consumer should consume 150 units of commodity 1 and none of commodity 2
 - At the optimum, the consumer should consume 75 units of commodity 2 and none of commodity 1
 - At the optimum, the consumer should consume 50 units of commodity 1 and 50 units of commodity 2
 - At the optimum, the consumer should spend equal amounts on the two commodities
52. Consider the following optimization problems :
- Maximize $f(x, y)$ subject to $x - 2y = 1$ and $3x + 2y = 11$
 - Minimize $f(x, y)$ subject to $x - 2y = 1$ and $3x + 2y = 11$
- Which of the following is true?
- The two problems have the same solution
 - The solutions to the two problems are different
 - Neither of the problems has a solution
 - Nothing can be said about the solutions to the problems unless the objective function is completely specified
53. If units of good 1 are measured on the horizontal axis and its price is p per unit whereas units of good 2 are measured on the vertical axis and its price is q per unit, the slope of the budget line is then given by
- p/q
 - $-p/q$
 - q/p
 - $-q/p$

54. There are three commodities—the first commodity has a negative price, -1 per unit; the second commodity is priced at $+1$ per unit while the third is priced at $+2$ per unit. Income of the person is ₹ 100 per day. Then which one of the following is **not** true?
- (a) An individual may afford to consume positive amounts of each per day
 - (b) An individual may afford to consume any amounts of goods 2 and 3 per day
 - (c) Any individual may afford to consume $(0, 0, 60)$
 - (d) An individual may afford to consume $(20, 0, 60)$
55. Among twenty-five articles, nine are defective, six having only minor defects and three having major defects. Determine the probability that an article selected at random has major defects given that it has defects.
- (a) $1/3$
 - (b) $1/4$
 - (c) $6/25$
 - (d) None of the above
56. The arithmetic mean of passengers on a metro car is 60. If the number of passengers on a car has a normal distribution with a standard deviation of 20, approximately what percent of metro cars carry more than 80 passengers?
- (a) 16%
 - (b) 48%
 - (c) 68%
 - (d) 88%
57. Satish is very conscious about the food he eats. He only eats *rotis* and *dal*; a cup of *dal* costs ₹ 2 while each *roti* costs ₹ 1 and Satish decides to spend only ₹ 13 per day on food. Also he decides to consume exactly 5500 calories a day; he has been told that each *roti* has 1000 calories while each cup of *dal* has 500 calories. He spends his entire money allocated on foods. Then
- (a) he consumes 3 *rotis* and 5 cups of *dal*
 - (b) he consumes no more than 3 *rotis* per day
 - (c) he consumes no more than 5 cups of *dal* per day
 - (d) Unless we are given some more information about preferences, we cannot say what Satish does

58. Let X, Y, Z be statements. Suppose we know that 'if X then Y ' is true, and that 'if Y then Z ' is true. We also know that Y is false. We can infer that
- (a) X is true
 - (b) X is false
 - (c) Z is true
 - (d) Z is false
59. Let X and Y be statements. If we want to disprove the claim that ' X implies Y ', we need to show that
- (a) X is false
 - (b) Y is false
 - (c) X is true but Y is false
 - (d) Y is true but X is false
60. Let X, Y, Z be statements. Suppose we know that ' X implies Y ', and that ' Z implies X '. We also know that Y is false. We can infer that
- (a) X is false and Z is true
 - (b) X is true and Z is false
 - (c) both X and Z are true
 - (d) both X and Z are false
61. Let X and Y be statements. Which of the following strategies is **not** a valid way to show that ' X implies Y '?
- (a) Assume that Y is false, and then use this to show that X is false
 - (b) Show that some statement Z implies Y , and then show that X implies Z
 - (c) Show that either X is false, or Y is true, or both
 - (d) Assume that X is false, and Y is true, and deduce a contradiction

62. Let X and Y be statements. If we know that ' X implies Y ', then we can also conclude that
- X is true and Y is also true
 - if X is false, then Y is false
 - if Y is true, then X is true
 - None of the above
63. Let X, Y, Z be statements. Suppose we know that ' X implies Y ', and that ' Y implies Z '. If we also know that X is false, we can infer that
- both Y and Z are true
 - Y is true and Z is false
 - Y is false and Z is true
 - None of the above
64. Let x, y and z be arbitrary real numbers. Then we must have
- $x > y \rightarrow xz > yz$
 - $x > y \rightarrow x - z > y - z$
 - $x > y \rightarrow x/z > y/z$
 - $x > y \rightarrow 1/x > 1/y$

65. The mean of the following sample

| X | Frequency of X |
|-----|------------------|
| 2 | 1 |
| 3 | 2 |
| 4 | 3 |

is

- 3
- 2
- 3.33
- 2.22

Answer Question Nos. **66–70** on the basis of the table below pertaining to an economy :

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | ⇐ Year / Item | |
|---------|---------|---------|---------|----------|---------------|--------------------------------------|
| 4705447 | 5411104 | 6406834 | 7434965 | y_e | 1 | National income |
| 600612 | 620370 | 825175 | y_d | 1153503 | 2 | Indirect taxes |
| 274116 | 251446 | 289920 | 349625 | 429098 | 3 | Subsidies |
| y_a | | | | 8980383 | 4 | Net national income at market prices |
| - 32923 | - 38000 | y_c | - 76830 | - 116766 | 5 | Net factor income from abroad |
| 4738370 | y_b | 6488641 | 7511795 | 8372744 | 6 | Net domestic product at factor cost |

- 66.** The value of y_a has to be
 (a) 5031943
 (b) 5580175
 (c) 5064866
 (d) 4705447
- 67.** The value of y_b has to be
 (a) 5818028
 (b) 5780028
 (c) 5411104
 (d) 5449104
- 68.** The value of y_c has to be
 (a) - 535255
 (b) 453448
 (c) - 81807
 (d) Cannot be determined from the given data
- 69.** The value of y_d has to be
 (a) 272795
 (b) 426455
 (c) 76830
 (d) Cannot be determined from the given data
- 70.** The value of y_e has to be
 (a) 8980383
 (b) 8372744
 (c) 9097149
 (d) 8255978

★ ★ ★

SPACE FOR ROUGH WORK