

- ✓ Given the Mean and Median, Mode is:
 D A
 A. Mode = 3 Median + 2 Mean
 B. Mode = 3 Median - 3 Mean
 C. Mode = 2 Median - 3 Mean
 ✓ D. Mode = 3 Median - 2 Mean

- ✓ Fiscal deficit is:
 A. Fiscal deficit = Total Expenditure - Revenue receipts - Capital receipts excluding borrowing
 B. Fiscal deficit = Total Expenditure - Revenue receipts excluding borrowing
 ✓ C. Fiscal deficit = Total Expenditure - Capital receipts excluding borrowing
 D. Fiscal deficit = Revenue Expenditure - Revenue receipts

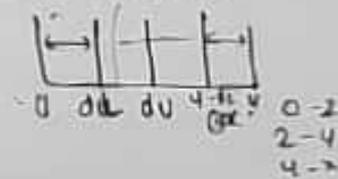
3. ✓ Suppose that you estimate the model $Y = \beta_0 + \beta_1 X + u$. You calculate residuals and find that the explained sum of squares is 800 and the total sum of squares is 1000. The R-squared is

- D
 A. 0.25
 B. 0.50
 C. 0.75
 ✓ D. 0.80

$$\begin{array}{l} ESS = 800 \\ TSS = 1000 \end{array} \quad \frac{800}{1000}$$

- ✓ What is the meaning of the term "autocorrelation"?
 A. The variance of the errors is not constant
 B. The variance of the dependent variable is not constant
 ✓ C. The errors are linearly dependent
 D. The errors have non-zero mean

5. ✓ If the Durbin-Watson statistic is substantially greater than 2, there is evidence of
 A. no autocorrelation
 B. Positive autocorrelation
 C. negative autocorrelation
 D. any of the above



6. ✓ If $|A| = 0$, then A is
 A. zero matrix
 B. ✓ singular matrix
 C. non-singular matrix
 D. None of the above

7. The Solow residual

- ✓ A. is the difference between the rate of growth of productivity and the rate of growth of inputs.
 B. is the difference between the rate of growth of output and the rate of growth of savings.
 C. is the difference between the rate of growth of output and the rate of growth of inputs.
 D. is the difference between the golden rule level of consumption and the steady state level of consumption..

$$c^* - k^* \gamma$$

8. ✓ If AB exists, then $(AB)^{-1}$ is
 A. $A^{-1}B^{-1}$
 B. ✓ $B^{-1}A^{-1}$
 C. AB

9. If there were no time lag between the input and output price changes the _____ aggregate supply curve would be almost entirely _____

- A. long-run, horizontal
- B. long-run, negatively sloped
- C. short-run, vertical
- D. short-run, horizontal

10. According to the life-cycle theory of consumption, people tend to consume _____ they earn during their early and later years.

- A. More than
- B. Less than
- C. the same as
- D. an amount unrelated to what

11. Overall income disparity can be measured by

- A. The difference between GDP and GNI
- B. The Gini Index
- C. The growth rate in Real GDP
- D. The population growth rate

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12. The Laffer Curve

- A. shows the positive relationship between tax rates and tax revenues
- B. shows the negative relationship between tax rates and tax revenues
- C. is used by supply-side economists to argue that it is possible to generate higher tax revenues by decreasing tax rates
- D. illustrates how a decrease in taxes, which are reflected in an increase of the disposable income of the workers, increases the incentives to work, thereby always increasing the tax revenues collected

13. Economic growth is depicted by

- A. a shift in the production possibilities frontier outward.
- B. a movement from inside the curve toward the curve.
- C. a shift in the production possibilities frontier inward.
- D. a movement along a production possibilities frontier toward capital goods

14. If there is excess capacity in a production facility, it is likely that the firm's supply curve is

- A. price inelastic.
- B. none of these answers.
- C. unit price elastic.
- D. price elastic

15. Use the following information to answer the next four questions:

The demand for books is: $Q^D = 100 - 2P$

The supply of books is: $Q^S = 2P$

What is the equilibrium price of books?

- A. 5
- B. 10
- C. 25
- D. 20

$$100 - 2P = 2P$$
$$100 = 4P$$
$$P = 25$$

16. Points on the production possibilities frontier are

- A. inefficient
- B. normative
- C. unattainable
- D. efficient

17. Given $(x_1, y_1), (x_2, y_2), \dots, (x_n, y_n)$, best fitting data to $y = f(x)$ by least squares requires minimization of

A. $\sum_{i=1}^n [y_i - f(x_i)]$ \neq

B. $\sum_{i=1}^n |y_i - f(x_i)|$ \neq

C. $\sum_{i=1}^n [y_i - f(x_i)]^2$ \checkmark

D. $\sum_{i=1}^n [y_i - \bar{y}]^2, \bar{y} = \frac{\sum_{i=1}^n y_i}{n}$

$y - f(x_i) = 0$

18. If consumers think that there are very few substitutes for a good, then

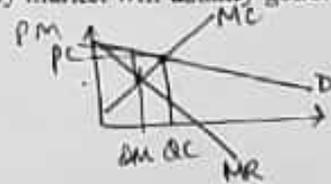
- A. supply would tend to be price elastic.
- B. demand would tend to be price inelastic. \checkmark
- C. demand would tend to be price elastic.
- D. none of these answers.

19. For which of the following products would the burden of a tax likely fall more heavily on the sellers?

- A. clothing
- B. food
- C. housing
- D. entertainment \checkmark

20. Compared to a perfectly competitive market, a monopoly market will usually generate

- A. higher prices and lower output. \checkmark
- B. higher prices and higher output.
- C. lower prices and lower output.
- D. lower prices and higher output.



21. If AB exists, then $(AB)^{-1}$ is

- A. $A^{-1}B^{-1}$
- B. $B^{-1}A^{-1}$ \checkmark
- C. AB
- D. None of Above

22. If A is a skew symmetric matrix, then A' is equal to

- A. $-A$ \checkmark
- B. A'
- C. 0
- D. diagonal matrix

$A = -A'$ $\boxed{A = -A'}$ \rightarrow symm

23. Deadweight loss is a measure of

- A. change in consumer welfare
- B. change in producer welfare
- C. change in social welfare \checkmark
- D. change in social inequality

24. Suppose agents have static expectations. Static expectation implies that

- A. in every period agents expect the previous period's actual value to prevail \checkmark
- B. in every period agents adjust their expected value by a constant positive fraction of the expectational error made in the previous period

$$10x = 1875 - 1050$$

$$x = 82.5$$

$$15 \frac{70}{100} + 10 \frac{x}{100} = \frac{75}{100}$$

$$\bar{x} = \frac{n_1 \bar{x}_1 + n_2 \bar{x}_2}{n_1 + n_2}$$

$$\frac{75}{15} = 5$$

$$\frac{2130}{1050} = 2.02$$

- C. in every period agents use all the information available in that period so that the expected value can differ from the actual value if and only if there is a stochastic element present
- D. none of the above
25. Consumer surplus is the area
- A below the demand curve and above the price.
- B. above the supply curve and below the price.
- C. above the demand curve and below the price
- D. below the supply curve and above the price.

26. If a producer has market power (can influence the price of the product in the market) then free market solutions
- A. are equitable.
- B. are efficient.
- C. maximize consumer surplus.
- D. are inefficient
- (monopoly)

27. According to the Human Development Report 2019, the country with the highest human development was:
- A. Canada
- B. Norway
- C. Japan
- D. Australia
- (HDI)

28. A graphical technique that can be used to show the degree of inequality that exists between two variables is the:
- A. Lorenz curve
- B. median-line bar graph
- C. Kuznets curve
- D. semantic differential profile

29. The average mark on a stats test for a class of 25 students was 75%. If the 15 female students in the class averaged 70%, then what did the male students in the class average?
- A. 82.5%
- B. 79.5%
- C. 63.0%
- D. 79.6%

$$\frac{70 \times 15 + 10x \times 10}{25} = 75$$

25 students = 75%

15 Female = 70%

10 Male = ?

30. If for a distribution difference of first quartile and median is greater than difference of median and third quartile then distribution is classified as
- A. absolute open ended
- B. positively skewed
- C. negatively skewed
- D. not skewed at all

$$\frac{(Q_1 - Q_2) > (Q_2 - Q_3)}$$



31. Identify the Capital Receipts
- A. Penalty
- B. Corporation Tax
- C. Dividends on Investments made by the government
- D. Sale of a Public Sector Undertaking

32. Massive unemployment is indicated by
- A. Left ward shift in PPC
- B. rightward shift in PPC
- C. under-utilisation of resources by a point inside PPC
- D. Over-utilisation of resources.

33. Which one of the following is a supply side policy which the government could use to help meet its economic objectives? (supply side)

34. In our model of decision making under different conditions, what is the difference between risk and uncertainty
- A. Under risk, information is reliable; under uncertainty, it is not.
 - B. Under risk, probabilities can be measured; under uncertainty, they cannot.
 - C. Under risk, choices are clear and the chances of different outcomes can be measured; under uncertainty, neither applies.
 - D. Under risk, there is a well defined problem; under uncertainty, the definition is unclear.
35. The production function $y = \min [L, K]$ is called:
- A. symmetric.
 - B. concave.
 - C. Leontief.
 - D. Cobb-Douglas.
36. The elasticity of substitution between two inputs in CES production function
- A. Decreases continuously
 - B. Increases continuously
 - C. Remains constant
 - D. None of these
37. Friedman's theory of consumption focuses on:
- A. Past income
 - B. Current income
 - C. Disposable income
 - D. Permanent income
38. Let R be a non-empty relation on a collection of sets defined by ARB if and only if $A \cap B = \emptyset$. Then (pick the TRUE statement)
- A. R is reflexive and transitive
 - B. R is an equivalence relation
 - C. R is symmetric and not transitive
 - D. R is not reflexive and not symmetric
39. Does the WTO come with its own institutional framework?
- A. No, the WTO depends on the relevant frameworks of national governments
 - B. No, the WTO provides certain institutional arrangements but only on an ad hoc basis
 - C. Yes, the WTO provides a certain institutional framework which changes depending on the nature of free trade agreements
 - D. Yes, the WTO provides a common institutional framework
40. The Fisher Effect states that:
- A. The real interest rate in any country equals the nominal rate of interest plus the expected rate of inflation
 - B. The difference in the national interest rates for securities of similar risk and maturity should be equal to, but opposite in sign to, the forward rate discount or premium for the foreign currency
 - C. The spot exchange rate between two countries is determined by the difference in the actual rates of inflation between the two
 - D. The nominal interest rate in any country equals, approximately, the real rate of interest plus the expected rate of inflation
41. Which one of the following index numbers is based on geometric mean?

$ARB \text{ iff } A \cap B = \emptyset$

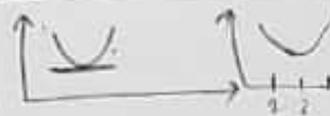
$A = \{1, 2\}$
 $B = \{3, 4\}$
 $A \cap B = \emptyset$
 ARB

$R \rightarrow$ Non empty Relation

$i = r + \pi^e$

$$y - q = 10 + 10q - 3q^2$$

$$q' = y' = 10 - 6q \quad y'' = -6 < 0$$



$$\frac{q+10}{6} = \frac{c-1}{2}$$

- A. Laspeyre's index number
- B. Fischer's index number
- C. Paasche's index number
- D. Bowley's index number

42. Which is the sustainability principle propounded by John Rawls?

- A. An obligation to leave the world as we found it in detail
- B. An obligation to leave to the future the nondeclining value of capital
- C. An obligation to leave to the future the nondeclining value of natural capital
- D. An obligation to leave to the future adequate amount of natural capital so that, at the minimum, future generations would be no worse off than current generation

43. The optimum level of economic activity and associated pollution from society's point of view occurs where:

- A. Marginal Private Benefit = Marginal Private Cost
- B. Marginal Social Benefit > Marginal Social Cost
- C. Marginal Social Benefit < Marginal Social Cost
- D. Marginal Social Benefit = Marginal Social Cost

44. If the Average Revenue function $AR = 10 + 5q - q^2$, then the marginal revenue (MR) function is

- A. Convex function
- B. Concave function
- C. Can be both Concave and Convex functions
- D. None of the above

$$TR = 10q + 5q^2 - q^3$$

$$MR = 10 + 10q - 3q^2$$

45. Indifference curves cannot intersect because of the assumption that

- A. marginal utility diminishes as more of that good is consumed.
- B. indifference curves are negatively sloped.
- C. preferences are transitive.
- D. preferences are complete.

46. Suppose Geeta enjoys classical (C) music but is irritated by Pop type of music (P). Which of the following utility functions would best represent Geeta's utility from classical and pop type of music?

- A. $U = C^{0.5}P^{0.5}$
- B. $U = C \cdot P$
- C. $U = C/P$
- D. $U = P/C$

47. An increase in aggregate demand is more likely to lead to demand-pull inflation if:

- A. Aggregate supply is perfectly elastic
- B. Aggregate supply is perfectly inelastic
- C. Aggregate supply is unit elastic
- D. Aggregate supply is relatively elastic

48. Which one of the following is the correct sequence in the process of economic integration between different countries?

- A. Common market—Free trade area—Custom union—Economic union
- B. Free trade area—Custom union—Common market—Economic union
- C. Free trade area—Common market—Custom union—Economic union
- D. Common market—Free trade area—Economic union—Custom union

49. What is the correct sequence of the Marxian stage theory of growth?

1. Slavery
2. Primitive Communism
3. Socialism
4. Communism

5. Feudalism

6. Capitalism

Select the correct answer by using the codes given below

- A. 1-2-3-4-5-6
- B. 2-1-5-6-3-4
- C. 1-2-5-6-3-4
- D. 2-1-5-6-4-3

50. In a cartel, member firms may be given a fixed amount to produce. This amount is called

- a. c
- A. Limitless
 - B. Factor
 - C. Quota
 - D. Quotient

51. Without adjusting for "purchasing power parity", Real GDP tends to understate income in developing economies by

- y c
- A. Underestimating saving
 - B. Ignoring government deficit spending
 - C. Omitting non-market transactions y
 - D. All of the above.

52. In Game Theory:

- D
- A. Firms are always assumed to act independently
 - B. Firms are always assumed to cooperate with each other
 - C. Firms always collude as part of a cartel
 - D. Firms consider the actions of others before deciding what to do

53. The Solow Growth Model predicts that

- D
- A. Rich nations will grow faster than poor nations
 - B. The rich will get richer and the poor will get poorer
 - C. The rich will get poorer and the poor will get richer
 - D. Poor nations will grow faster than rich nations

54. The concept of general equilibrium and partial equilibrium are associated respectively with-

- B
- A. Ricardo and Walras
 - B. Walras and Marshall
 - C. Arrow and Devreau
 - D. Keynes and Hansen

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55. Collusion most frequently occurs in industries that are

- A
- A. oligopolistic
 - B. monopolistically competitive
 - C. monopolistic
 - D. perfectly competitive

56. The Theory of Wages was developed by economist _____ in the year 1932.

- y c
- A. Gunnar Myrdal
 - B. R. Nurkse
 - C. J.R. Hicks
 - D. J. Robinson

57. Firm X and Firm Y were previously in direct competition, but now they plan to merge. This combination would be considered a

- A
- A. horizontal merger
 - B. vertical merger
 - C. complementary merger
 - D. conglomerate merger

58. In the Industrial Policy of 1991, how many industries were reserved only for Public Sector?

- Y B ✓ A 7
B. 8
C. 11
D. 13

59. Which among the following was NOT a reason behind India's poverty as pointed out by Dadabhai Naoroji in his famous work "Poverty and Un-British Rule in India"?

- Y C
A. Expenditure of the European Officials in England
B. Money sent by the British professionals to England
C. India's Population growth
D. Bringing of British Capital in India

60. Which of the following tax will be abolished by the Goods and Services Tax?

- C
A. Property tax
B. Corporation tax
C. VAT
D. All of the above

61. What is called Tax heaven?

- ✓ A
A. A country which gives tax exemptions to the foreign citizens that there will be no tax on investing the money in their country.
B. Subsidy given by the government in taxes
C. Tax evasion in the domestic country
D. To impose equal taxes on domestic producers and foreign producers

62. What kind of tax system is found in India?

- Y B
A. Progressive
B. Digressive
C. Proportional
D. None of the following

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63. Which currency is recently added in the basket of IMF currency?

- Y B
A. Japanese yen
B. Chinese Yuan
C. Indian Rupee
D. Brazilian Dollar

64. The following system of equations has _____ solution(s).

✓
 $x + y = 2$
 $6x + 6y = 12$

$x + y = 2$

- Y A
A. infinite
B. no
C. two
D. unique

65. International trade in goods and services is sometimes used as a substitute for all of the following except:

- D
A. International movements of capital
B. International movements of labour
C. International movements of technology
D. Domestic production of different goods and services

66. The movement to free international trade is most likely to generate short-term unemployment in which industries:

- B
A. Industries in which there are neither imports nor exports ✓
B. Import-competing industries
C. Industries that sell to domestic and foreign buyers

67. Mercantilism
- D. Industries that sell to only foreign buyers
 - A. Is the philosophy of free international trade
 - B. Was a system of export promotion and barriers to imports practiced by governments
 - C. Was praised by Adam Smith in The Wealth of Nations
 - D. Both (a) and (c).

68. The gains from international trade are closely related to:
- A. The labor theory of value
 - B. How much the autarky price differs from international terms of trade change
 - C. The fact that a country must lose from trade.
 - D. All of the above

69. If a country has a bowed out (concave to the origin) production possibility frontier, then production is said to be subject to:

- A. constant opportunity costs
- B. decreasing opportunity costs
- C. first increasing and then decreasing opportunity costs
- D. increasing opportunity costs.



70. The factor endowment model of international trade was developed by
- A. Adam Smith
 - B. David Ricardo
 - C. John Stuart Mill
 - D. Eli Heckscher and Bertil Ohlin

71. The theory of overlapping demands predicts that trade in manufactured goods is unimportant for countries with very different:

- A. Tastes and preferences
- B. Expectations of future interest rate levels
- C. Per-capita income levels
- D. Labor productivities

72. Declining costs per unit of output results from international trade especially if:

- A. International trade affords producers monopoly power
- B. National governments levy import tariffs and quotas
- C. Producing goods entails increasing costs
- D. economies of scale exist for producers.

73. The product cycle theory of trade is essentially a

- A. static, short run trade theory
- B. dynamic, long run trade theory
- C. zero-sum theory of trade
- D. negative-sum theory of trade

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74. The _____ analyzes the income distribution effects of trade in the short run, when resources are immobile among industries.

- A. Stolpher-Samuelson theory
- B. factor endowment theory
- C. specific factors theory
- D. overlapping demand theory

75. Wassily Leontief used an input-output table in order to test the

- A. Ricardian theory of comparative advantage
- B. Heckscher Ohlin theory of comparative advantage
- C. Linder theory of overlapping demand
- D. all of the above

76. Which one of the following pair is NOT correctly matched?

- C A. Inflationary Gap : Keynes
 - B. Cash Balance Approach : Pigou
 - C. IS-LM Analysis: Marshall
 - D. Monetarism : Friedman
77. Which one of the following pair is NOT correctly matched?
- A. The Purchasing Power of Money- Irving Fisher
 - D B. The Theory of Moral Sentiments- Adam Smith
 - C. Capitalism and Freedom- Milton Friedman
 - D. The Pure Theory of Capital- Karl Marx

78. If both the regression coefficients are negative, the corresponding t-ratios would be ...
- A. negative
 - A B. positive
 - C. zero
 - D. none of these

79. Which of the following indicates the strongest relationship?
- A. $r = 0.2$
 - D B. $r = 0.5$
 - C. $r = 0.09$
 - D. $r = -0.62$

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80. R^2 is the mathematical notation for:
- A. Pearson's Co-efficient of Correlation
 - B. The Co-efficient of Determination
 - C. Spearman's Co-efficient of Rank Correlation
 - D. The Co-efficient of Variation

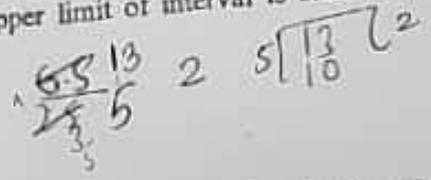
81. If vertical lines are drawn at every point of straight line in frequency polygon then by this way frequency polygon is transformed into

- A. width diagram
- B. length diagram
- C. histogram
- D. dimensional bar charts



82. Classification method in which upper limit of interval is same as of lower limit class interval is called

- A. exclusive method
- B. inclusive method
- C. mid-point method
- D. ratio method



83. The distribution of heights of Indian women aged 18 to 24 is approximately normally distributed with a mean of 65.5 inches and standard deviation of 2.5 inches. Calculate the z-score for a woman six feet tall.

2 inches
0
72 inches

- A. 2.60
- B. 4.15
- C. 1.05
- D. 1.30

$\bar{x} = 65.5$
 $s.d = 2.5$

18 to 24
Z score.

66t

84. When asked questions concerning personal hygiene, people commonly lie. This is an example of:

- A. sampling bias
- D B. confounding
- C. non-response bias
- D. response bias

85. When coefficient of skewness is zero the distribution is
- A. J-shaped

- B. U-shaped
- C. Symmetrical
- D. L-shaped

86. India ranked at _____ among 190 in Ease of Doing Business in the latest release of World Bank's Doing Business Report.

- B. 77
- A. 100
- C. 150
- D. 15

87. Which of the following is not an important variable in growth accounting calculations?

- A. money supply growth
- B. capital growth
- C. productivity growth
- D. labour growth

88. Over the past year, output grew 3%, capital grew 4%, and labour grew 3%. If the elasticities of output with respect to capital and labour are 0.3 and 0.7, respectively, how much did productivity grow?

- D. 0.0
- A. -0.3
- B. 0.7
- C. 0.3

$$y = 3\% \quad K = 4\% \quad L = 3\%$$

$$e_{yK} = 0.3 \quad e_{yL} = 0.7$$

89. The book entitled "Economics Without Equilibrium" has been written by

- B. N. Kaldor
- A. J. Robinson
- C. E. Meade
- D. Rosenstein Rodan

90. As per latest economic survey, budget estimates of fiscal deficit for 2019-20 is _____ Per Cent of GDP

- B. 3.4
- A. 3.3
- C. 3.5
- D. 3.5

91. For a Poisson's distribution with $n = 400$, $p = 0.06$, the mean is

- C. 24
- A. 12
- B. 40
- D. 10

$$np = 400(0.06) = 24$$

92. A partial differential equation requires

- B. two or more independent variables
- A. exactly one independent variable
- C. more than one dependent variable
- D. equal number of dependent and independent variables

93. The partial differential equation

$$xy \frac{\partial z}{\partial x} - 5 \frac{\partial^2 z}{\partial y^2}$$

is classified as

- B. parabolic
- A. elliptic
- C. hyperbolic

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94. The definition of the first derivative of a function $f(x)$ is

- A. $f'(x) = \frac{f(x + \Delta x) + f(x)}{\Delta x}$
- B. $f'(x) = \frac{f(x + \Delta x) - f(x)}{\Delta x}$
- C. $f'(x) = \lim_{\Delta x \rightarrow 0} \frac{f(x + \Delta x) + f(x)}{\Delta x}$
- D. $f'(x) = \lim_{\Delta x \rightarrow 0} \frac{f(x + \Delta x) - f(x)}{\Delta x}$

D

95. The backward-bending supply curve for labour exists

- A. Only in inflationary conditions
- B. Wherever income effect overcomes substitution effect
- C. Only in labour intensive industry
- D. Only in a high cost industry

B

96. The revealed preference theory assumes

- A. Strong ordering
- B. Weak ordering
- C. Introspection
- D. None of these

A

97. According to the monetarists, in the long-run, the Phillips Curve is:

- A. Vertical
- B. downward-sloping
- C. horizontal
- D. upward-sloping

A

98. Given the consumption function $C = 205 + 0.5Y$. What is the multiplier?

- A. 0.09
- B. 2.00
- C. 0.9
- D. 9.00

B

$c = 0.5$
 $Y = C + I$
 $\frac{1}{1-c} = \frac{1}{1-0.5} \cdot Y = 205 + 0.5Y$
 $0.5Y = 205$
 $Y = \frac{2050}{0.5}$

99. The _____ is the amount of funds that the banks are bound to keep with Reserve bank of India as a portion of their Net Demand and Time Liabilities (NDTL). This is called?

- A. Statutory Liquid Ratio
- B. Cash Reserve Ratio
- C. Liquid Ratio
- D. Statutory Ratio

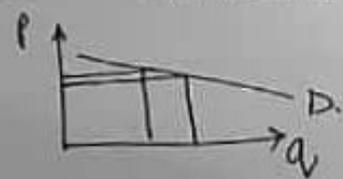
B

100. If the demand for a good is elastic, an increase in its price will cause the total expenditure of the consumers of the good to:

- A. Increase
- B. Decrease
- C. Remain the same
- D. Become zero

f

da → elastic.



Total exp. = $P \cdot Q$.

$P \rightarrow 4$ $P' \rightarrow 5$
 $Q \rightarrow 10$ $Q' \rightarrow 15$
 $TE = 40 \rightarrow 75$

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