



BSO Bloom
School
Olympiad

CLASS
11

Bloom Economics Olympiad Sample Paper

Maximum Time : 60 Minutes

Maximum Marks : 60

INSTRUCTIONS

1. There are 50 Multiple Choice Questions in this paper divided into two sections :

Section A 40 MCQs; 1 Mark each

Section B 10 MCQs; 2 Marks each

2. Each question has Four Options out of which **ONLY ONE** is correct.

3. All questions are compulsory.

4. There is no negative marking.

5. No electric device capable of storing and displaying visual information such as calculator and mobile is allowed during the course of the exam.

Roll No.

Student's Name

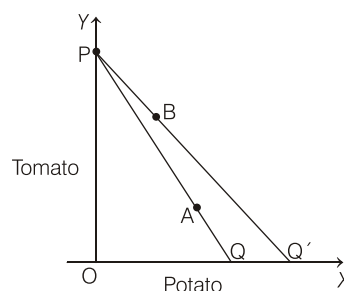
Section-A (1 Mark each)

1. Concept of scale economies applies in
 - (a) long-run with constant technical coefficients
 - (b) long-run with variable technology
 - (c) short-run with constant technology
 - (d) short-run with variable technical coefficient
2. Equilibrium price is determined by which of the following factors in a perfectly competitive market?
 - (a) Supply of commodities
 - (b) Demand of commodities
 - (c) Both (a) and (b)
 - (d) None of these
3. Which of the following is not a non-sampling error?
 - (a) Faulty demarcation of sampling units
 - (b) Errors in data acquisition
 - (c) Non-response errors
 - (d) Sampling bias
4. Random sampling implies that
 - (a) the observations are selected purposively
 - (b) the observations are selected in a systemic manner
 - (c) the observations are selected in an adhoc manner
 - (d) the observations are selected in clusters
5. During winter season, sale of woollen clothes and electric heaters both increase due to a fall in the temperature. This means there exists correlation between woollen clothes and heaters.
 - (a) perfect positive
 - (b) perfect negative
 - (c) spurious
 - (d) positive
6. Correlation is preferred over covariance as a measure of association because
 - (a) correlation coefficient has no unit
 - (b) correlation coefficient is independent of scale
 - (c) correlation coefficient is independent of origin
 - (d) All of the above
7. Which of the given strategies helps to provide the prediction mechanism by analysing the relationship between two variables?
 - (a) Regression
 - (b) Standard error
 - (c) Correlation
 - (d) None of the preceding

- 8.** The value of correlation coefficient of two variables 'alpha' and 'beta' has been computed as 0.39. What does this value convey?
 (a) High degree of positive correlation (b) Moderate degree of positive correlation
 (c) Low degree of positive correlation (d) Very low degree of positive correlation
- 9.** What is the name of the monthly price index that takes price changes in consumer goods and services and uses it to determine changes in the price of those products over a period of time?
 (a) Wholesale price index (b) Consumer price index
 (c) Paasche's index (d) None of the above
- 10.** Which of the following index measures the change from month to month in the cost of a representative 'basket' of goods and services of the type which are brought by a typical household?
 (a) Retail price index (b) Laspeyres price index
 (c) Financial time index (d) Paasche's price index
- 11.** Which of the following is/are limitation(s) of using index numbers?
 (a) The use of each index number is restricted to a specific object
 (b) It ignores the quality of commodities
 (c) It is useful only for short-term comparison
 (d) All of the above
- 12.** A consumer consumes only two goods X and Y and is initially in equilibrium. Suppose government imposes per unit tax on Good X, which raises price of Good X. What will be the reaction of the consumer?
 (a) Consumption of Good X falls and MU_x will rise
 (b) Consumption of Good X rises and MU_x will fall
 (c) Consumption of Good Y rises and MU_y will fall
 (d) Can be explained by either (a) or (c)
- 13.** Which amongst the following is a correct description of inverse demand function?
 (a) $p = f(D)$ (b) $D = f(p)$ (c) $D = f\left(\frac{1}{p}\right)$ (d) $p = f\left(D, \frac{1}{y}\right)$
- Where p = Price, D = Demand and y = income.
- 14.** When a consumer is in equilibrium, MRS_{XY} is 2.5. If the price of commodity Y is 16, then what will be the price of commodity X ?
 (a) 40 (b) 6.4 (c) 23.2 (d) 24
- 15.** For a linear demand curve, which of the following is true?
 (a) Elasticity of demand is unity at all points
 (b) Elasticity of demand is constant at all points
 (c) Elasticity increases as one slides down the demand curve
 (d) Elasticity declines as one slides down the demand curve

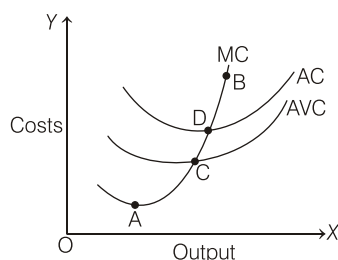
- 16.** It is that law of demand operates because of diminishing marginal utility, also it is that this law is applicable for consumption of all goods.
(a) true, false (b) false, true (c) true, true (d) false, false
- 17.** It is that the difference between total cost and total variable cost falls with an increase in output, also it is that average variable cost falls even when marginal cost is rising.
(a) true, false (b) false, true (c) true, true (d) false, false
- 18.** It is that data collected through direct personal interview is generally reliable, also it is that mailing questionnaire can be used in all cases.
(a) true, false (b) true, true (c) false, false (d) false, true
- 19.** It is that the composition of the population of Delhi by religion can be represented by a simple bar graph, and it is also that different components of cost in a factory can be most effectively depicted through component bar diagram.
(a) true, false (b) false, true (c) true, true (d) false, false
- 20.** Which of the following is true for sampling?
(a) When population is non-homogeneous, a stratified sample is preferred
(b) Census method is suitable when there are widely diverse items
(c) Purposive sampling contains the risk of personal bias
(d) All of the above
- 21.** Which of the following provides correct distinction between price ceiling and price floor?
(a) Under price ceiling, price is set below the equilibrium price while it is set above the equilibrium price under price floor
(b) Price ceiling often results in excess demand while price floor results in excess supply
(c) Both (a) and (b)
(d) None of the above
- 22.** Which of the following statements provide correct distinction between mean, median and mode?
(a) Mean is capable of further algebraic treatment but not median and mode
(b) Mean is not affected by extreme values but mode and median does
(c) Mean and median can be computed graphically but not mode
(d) None of the above
- 23.** In the short-run production function, which one of the following is correct?
(a) Technology is assumed to change as labour input changes
(b) Technology is assumed to change as capital stock changes
(c) Technology is assumed to change positively until diminishing returns set in
(d) Technology is assumed to be constant for a given production function relationship

- 24.** Which of the following incorrectly differentiates between classification and tabulation?
- Classification facilitates the presentation of data, whereas tabulation facilitates statistical analysis
 - Classification helps to organise data, whereas tabulation helps in presentation
 - Classification is done on the basis of attributes, whereas tabulation is arranging data in rows and columns under various heads
 - None of the above
- 25.** If we add frequencies one by one to the previous frequency in an ascending order of the magnitude of the frequency distribution, we get
- more than cumulative frequency distribution
 - less than cumulative frequency distribution
 - bi-variate frequency distribution
 - multi-variate frequency distribution
- 26.** Shoes and socks are complementary goods. Which of the following chain effect is incorrect when the price of shoes increases?
- Demand for socks will fall
 - Excess supply will induce competition among sellers, thus raising the price level
 - Process is characterised by a downward shift in demand curve and with no change in supply curve
 - Price will fall leading to a decrease in supply and rise in demand
- 27.** Choose the correct options from the given below
- Statistics in singular sense is a series of collection, organisation, presentation, analysis and interpretation of data
 - Statistics in singular sense means collection of numerical data
 - Statistics in plural sense is a series of collection, organisation and interpretation of data
 - Statistics in plural sense is collection of numerical data
- 28.** In the given diagram, after the price change, the price line shifts from PQ to PQ' and consumer comes to equilibrium at point B instead of point A. In this case, what is true for potatoes?



- It is a normal good
- It is an inferior good
- It is a Giffen good
- Nothing can be said about the nature of the good

29. On the given diagram, which of the following segments correctly depicts the supply curve of a producer?



- (a) DB (b) CB (c) AB (d) None of these
30. The price elasticity of supply of a commodity is 2. When its price falls from ₹ 10 to ₹ 8 per unit, its quantity supplied falls by 500 units. Calculate the quantity supplied at the reduced price.
 (a) 1,250 (b) 500 (c) 750 (d) 1,000
31. What will be the value of price elasticity of demand if firm's average revenue equals \$15 and marginal revenue is one-third of average revenue?
 (a) 1.2 (b) 1.5 (c) 1.6 (d) 1.8
32. The wages of 8 workers expressed in rupees are 42, 45, 49, 38, 56, 54, 55 and 47. Find median wage.
 (a) 45 (b) 46 (c) 47 (d) 48
33. Calculate Karl Pearson's coefficient of correlation between X and Y from the following data
 $n = 8, \bar{X} = 11, \bar{Y} = 10, \Sigma x^2 = 184, \Sigma y^2 = 148, \Sigma xy = 164$
 (a) 0.54 (b) 0.61 (c) 0.35 (d) 0.99
34. Mr Ashok was getting ₹ 400 in the base year and ₹ 800 in the current year. If Consumer Price Index (CPI) is ₹ 350, then what extra amount is required for maintaining the earlier standard of living?
 (a) ₹ 1,400 (b) ₹ 600 (c) ₹ 800 (d) ₹ 1,600
35. Find out the price index of the year 2015 assuming 2014 as the base year of the following data by using simple average of price relative method.

Commodity	Price in 2014 (₹) Per Quintal	Price in 2015 (₹) Per Quintal
Wheat	800	900
Sugar	1,100	1,200
Rice	400	600
Potato	500	700
Salt	300	500

- (a) 140.20 (b) 123.21 (c) 135.65 (d) 152.21

36. Consider the following statements about the law of variable proportion and choose the correct answer.

- I. Input ratio remains unchanged
- II. Ultimately the marginal and average product of variable input becomes negative
- III. Effect of technological change is visible on output

Codes

- (a) Only II is correct
- (b) I and II are correct
- (c) II and III are correct
- (d) None of the statements are correct

37. Consider the following statements about the average fixed cost of a firm and identify which of the following is/are correct?

- I. Its slope is always negative
- II. Its slope is always greater than one
- III. Its slope is always equal to one
- IV. Elasticity with respect to output is equal to one

Codes

- (a) I and IV
- (b) Only III
- (c) II and III
- (d) Only I

38. Which of the following statements is/are correct?

- I. Normative economic analysis examines economic events from moral and ethical angles and judge their desirability.
- II. The opportunity cost of holding currency by an individual is reflected in interest rates and inflation differentials.

Codes

- (a) Statement I is true, but Statement II is false
- (b) Statement I is false, but Statement II is true
- (c) Both statements are true
- (d) Both statements are false

39. Which of the following statements is/are true?

- I. Arithmetic mean is not a suitable measure for qualitative characteristics and skewed distributions.
- II In case of open-ended classification, median is a useful measure because only the position has to be ascertained.

Codes

- (a) Statement I is true, but Statement II is false
- (b) Statement I is false, but Statement II is true
- (c) Both statements are true
- (d) Both statements are false

40. Following excerpt has been taken from the article published in The Economic Times on 31st July, 2018

In a big boost to India, the US has eased the export restrictions for high-technology product sales to India by designating it as a Strategic Trade Authorisation-1 (STA-1) country, the only South Asian nation to be on the 36 countries list. This will allow India to import a wide range of high-tech products from US, including sensitive defence technologies.

What do you think would be the most likeable impact on India's PPF as a result of this?

- (a) Leftward shift indicating more efficient utilisation of resources
- (b) Rightward shift indicating less efficient utilisation of resources
- (c) No change
- (d) Rightward shift indicating more efficient utilisation of resources

Section-B (2 Marks each)

41. Choose the incorrect pair from the given below

Column I	Column II
A. Scarcity Definition of Economics	(i) Prof. Lionel Robbins
B. Growth Oriented Definition of Economics	(ii) Prof. Paul Sweezy
C. Welfare Definition of Economics	(iii) Prof. Alfred Marshall
D. Economics is the Science of the Wealth of the Nation	(iv) Prof. Adam Smith

Codes

- (a) A – (i) (b) B – (ii) (c) C – (iii) (d) D – (iv)

42. Identify the correct sequence of alternatives given in Column II by matching them with respective terms in Column I.

Column I	Column II
A. Multiple bar diagram	(i) Subdivided bar for different parts
B. Component bar diagram	(ii) Two or more sets of data
C. Percentage bar diagram	(iii) Suitable for variable with both, + ve and – ve values
D. Deviation bar diagram	(iv) Suitable when the values are of high magnitude

Codes

- | | | | | | | | |
|-----------|-----|-------|------|----------|-------|------|-------|
| A | B | C | D | A | B | C | D |
| (a) (ii) | (i) | (iii) | (iv) | (b) (ii) | (iii) | (i) | (iv) |
| (c) (iii) | (i) | (ii) | (iv) | (d) (ii) | (i) | (iv) | (iii) |

Direction (Q. No. 43 to 46) There are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the appropriate option from the options given below

Alternatives

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)

(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not correct explanation of Assertion (A)

(c) Assertion (A) is true, but Reason (R) is false

(d) Assertion (A) is false, but Reason (R) is true

43. Assertion (A) Consumer's utility is the point of 'satiety' where he attains maximum gain with given resources.

Reason (R) A rational consumer prefers consumption of more units of goods as compared to less units.

44. Assertion (A) Giffin's paradox rarely occurs in the real world.

Reason (R) Inferior goods are narrowly defined for which suitable substitutes are available.

45. Assertion (A) The slope of a price demand curve is negative.

Reason (R) Keeping other factors constant, the law of demand states that demand and price are inversely related.

46. Assertion (A) Pilot survey is a trial survey undertaken to test the effectiveness of questionnaire on a small group.

Reason (R) This assesses the suitability of questions, clarity of instructions, performance of enumerators and the cost and time involved in actual survey.

Direction Read the following case study and answer the Q. No. 47 to 50 on the basis of the same

How quickly will American businesses reopen after COVID-19 lockdowns end? A nationwide survey was conducted of small businesses to measure firms' expectations about their re-opening and future demand.

A plurality of firms in our sample expect to reopen within days of the end of legal restrictions, but a sizable minority expect to delay their reopening.

While health-related variables, such as COVID-19 case rates and physical proximity of workers, do explain the prevalence and expected duration of regulated lockdown, these variables have little or no correlation with post-lockdown reopening intentions.

Instead, almost one half of closed or partially open businesses said that their reopening would depend on the reopening of related businesses, including customers and suppliers.

Owners expect demand to be one-third lower than before the crisis through autumn. Firms with more pessimistic expectations about demand predict a later reopening. Using an instrumental variables strategy, we estimate the relationship between demand expectations and reopening. These estimates suggest that post-lockdown delays in reopening can be explained by low levels of expected demand.

Source-Harvard Business School Working Knowledge Baker Library.

- 47.** Why demand was low even after the lockdown restrictions were lifted in America?
 (a) Fall in income (b) Lack of availability of factors
 (c) Fear of corona virus outbreak (d) Both (a) and (c)
- 48.** As a result of fall in demand, demand curve will
 (a) shifts rightwards (b) shifts leftwards
 (c) moves downwards (d) moves upwards
- 49.** Demand curve for essential commodity will have shape.
 (a) downward sloping and steeper (b) downward sloping and flatter
 (c) upward sloping and steeper (d) upward sloping and flatter
- 50. Assertion (A)** Owners of general stores expected demand to be one-third lower in post pandemic situation.

Reason (R) Worldwide lockdowns lead to fall in economic activities and per capita income of the country.

Alternatives

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
 (b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)
 (c) Assertion (A) is true, but Reason (R) is false
 (d) Assertion (A) is false, but Reason (R) is true

OMR SHEET

1	a	b	c	d	2	a	b	c	d	3	a	b	c	d	4	a	b	c	d
5	a	b	c	d	6	a	b	c	d	7	a	b	c	d	8	a	b	c	d
9	a	b	c	d	10	a	b	c	d	11	a	b	c	d	12	a	b	c	d
13	a	b	c	d	14	a	b	c	d	15	a	b	c	d	16	a	b	c	d
17	a	b	c	d	18	a	b	c	d	19	a	b	c	d	20	a	b	c	d
21	a	b	c	d	22	a	b	c	d	23	a	b	c	d	24	a	b	c	d
25	a	b	c	d	26	a	b	c	d	27	a	b	c	d	28	a	b	c	d
29	a	b	c	d	30	a	b	c	d	31	a	b	c	d	32	a	b	c	d
33	a	b	c	d	34	a	b	c	d	35	a	b	c	d	36	a	b	c	d
37	a	b	c	d	38	a	b	c	d	39	a	b	c	d	40	a	b	c	d
41	a	b	c	d	42	a	b	c	d	43	a	b	c	d	44	a	b	c	d
45	a	b	c	d	46	a	b	c	d	47	a	b	c	d	48	a	b	c	d
49	a	b	c	d	50	a	b	c	d										

Hints and Answers

1. (a) long-run with constant technical coefficients
2. (c) Both (a) and (b)
3. (a) Faulty demarcation of sampling units
4. (b) the observations are selected in a systemic manner
5. (c) spurious
6. (d) All of the above
7. (a) Regression
8. (c) Low degree of positive correlation
9. (b) Consumer price index
10. (d) Paasche's price index
11. (d) All of the above
12. (d) Can be explained by either (a) or (c)
13. (a) $p = f(D)$
14. (a) $MRS_{xy} = \frac{P_x}{P_y} \Rightarrow 2.5 = \frac{P_x}{16} \Rightarrow P_x = 40$
15. (d) Elasticity declines as one slides down the demand curve
16. (a) true, false
17. (b) false, true
18. (a) true, false
19. (d) false, false
20. (d) All of the above
21. (c) Both (a) and (b)
22. (a) Mean is capable of further algebraic treatment but not median and mode
23. (a) Technology is assumed to change as labour input changes
24. (a) Classification facilitates the presentation of data, whereas tabulation facilitates statistical analysis
25. (a) more than cumulative frequency distribution
26. (b) Excess supply will induce competition among sellers, thus raising the price level
27. (b) Statistics in singular sense means collection of numerical data
28. (c) It is a giffen good
29. (b) CB
30. (c) Given, $P = ₹ 10$, $P_1 = ₹ 8$

$$\Delta P = 8 - 10 = (-) ₹ 2$$

$$Q = ?, \Delta Q = -500 \Rightarrow E_s = 2, Q_1 = ?$$

Price Elasticity of Supply

$$(E_s) = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q} \Rightarrow 2 = \frac{-500}{-2} \times \frac{10}{Q} \Rightarrow Q = \frac{-500 \times 10}{-2 \times 2} = 1,250$$

\therefore Quantity supplied at the reduced price

$$Q_1 = Q + \Delta Q, = 1,250 + (-500) = 1,250 - 500$$

$\therefore Q_1 = 750$ units

31. (b) Given AR = 15, and MR = 5

$$\text{We know, } MR = AR (1 - 1/e) ; 5 = 15 (1 - 1/e) \Rightarrow \frac{1}{3} = 1 - \frac{1}{e} \Rightarrow \frac{1}{e} = 1 - \frac{1}{3} \Rightarrow \frac{1}{e} = \frac{2}{3} \Rightarrow e = \frac{3}{2} = 1.5$$

32. (d) On arranging the given wages in ascending order, we get 38, 42, 45, 47, 49, 54, 55, 56.

The total number of observations is 8 which is even, therefore

$$\text{Median} = \text{Size of } \left(\frac{n+1}{2}\right) \text{th item} = \text{Size of } \left(\frac{8+1}{2}\right) \text{th item} = \text{Size of 4.5th item}$$

$$M = \frac{4\text{th item} + 5\text{th item}}{2} = \frac{47 + 49}{2} = \frac{96}{2} = 48$$

33. (d) $r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}} = \frac{164}{\sqrt{184 \times 148}} = \frac{164}{\sqrt{27,232}} = \frac{164}{165.02} = 0.99$

34. (b) For former standard of living, Ashok should get = $\frac{\text{Salary in Base Year} \times \text{CPI}}{100} = \frac{400 \times 350}{100} = 1,400$

∴ Amount required for maintaining the same standard of living = 1400 – 800 = ₹ 600

35. (c) Construction of Price Index Number

Commodity	Price in 2014 (₹) (p ₀)	Price in 2015 (₹) (p ₁)	$I \left(\frac{p_1}{p_0} \times 100 \right)$
Wheat	800	900	112.50
Sugar	1,100	1,200	109.09
Rice	400	600	150.0
Potato	500	700	140.0
Salt	300	500	166.67
n = 5			Σ I = 678.26

∴ $P_{01} = \frac{\Sigma I}{n} = \frac{678.26}{5} = 135.65$

36. (d) None of the statements are correct

37. (a) I and IV

38. (c) Both statements are true

39. (c) Both statements are true

40. (d) Rightward shift indicating more efficient utilisation of resources

41. (b) B – (ii)

42. (d) (ii) (i) (iv) (iii)

43. (d) Assertion (A) is false, but Reason (R) is true.

44. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

45. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

46. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

47. (a) Fall in income

48. (b) shifts leftwards

49. (a) downward sloping and steeper

50. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).