BLOOM Economics
Olympiad (BEO)
Question Paper 2024-25

Class 11

Total Questions: **50 + 5** (Tie-Breaking Section)

Total Time Allotted :
60 minutes

Total Marks
60

Instructions

1. There are **50 Multiple Choice Questions** in this booklet having 4 options out of which **ONLY ONE** is correct.

2. There are two sections in the Question Paper; **Section A** having 40 Questions carrying 1 Mark each & **Section B** having 10 Higher Difficulty Order Questions carrying 2 Marks each.

3. All questions are compulsory. There is **NO negative** marking for incorrect answers.

4. Total time allotted to complete the paper is 60 minutes.

5. Please fill in your details in the space provided on this page before attempting the paper.

OMR Sheet Instructions

1. Before starting the paper, fill in all the details in the OMR Sheet.

2. Additional 10 minutes will be provided to fill up the OMR sheet, before the start of the exam.

3. Use HB Pencil to darken the circle of the correct Option in OMR sheet. The correct way to darken the circle in OMR sheet is shown below.

    ● ○ ○ ○

4. Use black or blue ball point pen/HB pencil to fill the information in the OMR sheet. Partially filled OMR sheet will not be checked.

5. Return the OMR sheet to the invigilator after the exam.

CODE #206

EC11

BLOOM CAP
Founded by | arihant

Section A (1 Mark)

1. The 'invisible hand' theory, as proposed by Adam Smith, suggests that
   (a) government interventions are necessary to guide markets
   (b) markets are self-regulating through the forces of demand and supply
   (c) monopolies are beneficial for economic growth
   (d) economic decisions should be made based on tradition and custom

2. Which of the following is most likely to cause an increase in the supply of a product?
   (a) A decrease in the price of the product
   (b) An increase in the price of raw materials
   (c) Technological advancements in production
   (d) A decrease in the number of sellers

3. Order the following events to understand the impact of Marginal Utility (MU) on Total Utility (TU) when consumption increases
   A. Total Utility (TU) increases as long as Marginal Utility (MU) is positive
   B. Total Utility (TU) reaches its maximum when Marginal Utility (MU) is zero
   C. Total Utility (TU) starts to decline when Marginal Utility (MU) becomes negative
   D. Marginal Utility (MU) decreases as more units are consumed, leading to diminishing returns
   Alternatives
   (a) A > D > B > C   (b) D > A > B > C
   (c) A > B > C > D   (d) C > B > A > D

4. Identify the correct statements.
   I. Marginal cost is the additional cost of producing one more unit.
   II. Average cost is the sum of fixed cost and variable cost divided by the number of units.
   III. Total revenue is calculated by multiplying the number of units sold by the selling price per unit.
   IV. Fixed costs change with the level of output.
   Alternatives
   (a) I and II   (b) II and IV
   (c) I and III   (d) II and III

5. A student calculated the mean of his 5 test scores but mistakenly used a score of 85 instead of the actual score of 65. If the incorrect mean was 75, what is the correct mean?
   (a) 71   (b) 73
   (c) 74   (d) 77

6. In a city, there are two car factories, Factory A and Factory B. Factory A can produce 100 red cars or 200 yellow cars per batch, while Factory B can produce 50 red cars or 150 yellow cars per batch. Which factory has the higher opportunity cost of producing one yellow car?
   (a) Both factories have the same opportunity cost
   (b) Factory A
   (c) There is not enough information to answer
   (d) Factory B

7. Suppose we observe two competing smartphone companies, Apple and Samsung. Ceteris Paribus, if Apple launches a new model with a significantly lower price, we should expect that
   (a) Samsung's supply curve will shift to the left and the price of Samsung smartphones will increase
   (b) Samsung's supply curve will shift to the right and the price of Samsung smartphones will decrease
   (c) Samsung's demand curve will shift to the left and the price of Samsung smartphones will decrease
   (d) Samsung's demand curve will shift to the right and the price of Samsung smartphones will increase

8. It is …………… that at producer's equilibrium, Marginal Cost (MC) equals Marginal Revenue (MR), while it is ……………… that Average Cost (AC) is irrelevant to the producer's equilibrium point.
   (a) true, true   (b) true, false
   (c) false, true   (d) false, false

9. A producer is willing to supply 200 units of a product at a price of ₹ 40. If the price rises to ₹ 50 and the producer increases supply to 250 units, what is the percentage change in quantity supplied?
   (a) 10%   (b) 20%   (c) 25%   (d) 30%

10. Tom's income has increased, allowing him to purchase more of both his favourite snacks, chips and chocolates. This change is best explained by which economic concept?

(a) Substitution effect   (b) Cross-price effect

(c) Income effect   (d) Elasticity effect

11. "Tomato Prices Crash Amidst Surge in Supply from Major Producing Regions (The Economic Times, July 2024)."

Which economic concept does this headline illustrate in a perfectly competitive market?

(a) Price floor   (b) Price ceiling

(c) Law of supply and demand

(d) Oligopolistic price wars

12. Which of the following statements is incorrect regarding Fisher's ideal index?

(a) It is the geometric mean of the Laspeyres and Paasche indices

(b) It eliminates the bias present in individual indices

(c) It is widely used due to its simplicity of calculation

(d) It satisfies both the time reversal and factor reversal tests

13. Which of the following statements about central economic problems is incorrect?

(a) The problem of 'what to produce' involves deciding the types of goods and services to be produced

(b) The problem of 'how to produce' involves choosing between different methods of production

(c) The problem of 'for whom to produce' involves determining how to distribute the produced goods among different sections of society

(d) The issue of 'economic growth' is considered a central economic problem, although it does not directly relate to the allocation of resources

14. It is ………… that in an oligopoly market, large number of firms dominate the market, while it is …………… that new firms can easily enter the market and compete.

(a) true, true   (b) true, false

(c) false, true   (d) false, false

15. The correlation coefficient between two variables X and Y is 0.9. If X is doubled and 5 is added to Y, what will be the new correlation coefficient?

(a) 0.9   (b) 1.8

(c) 0.45   (d) 0.2

16. It is …………… that a negative correlation between two variables means that as one variable increases, the other variable also increases. Also, it is ……………… that the strength of the correlation can be measured by the correlation coefficient, which ranges from –1 to +1.

(a) true, true   (b) true, false

(c) false, true   (d) false, false

17. The price of oranges increases from INR 30 per kilogram to INR 33 per kilogram, causing the quantity demanded to decrease from 200 kilograms to 180 kilograms. Calculate the price elasticity of demand for oranges and determine if the demand is elastic, inelastic or unit elastic.

(a) Elasticity = – 0.8; Demand is inelastic

(b) Elasticity = – 1.2; Demand is elastic

(c) Elasticity = – 1.0; Demand is unit elastic

(d) Elasticity = – 1.5; Demand is elastic

18. Which of the following is considered a normative statement in economics?

(a) The unemployment rate is currently 7%

(b) The government should reduce taxes to increase disposable income

(c) The central bank raised interest rates by 0.25%

(d) The price of crude oil has risen by 15% in the last month

19. Arrange the following steps in the correct order for conducting a survey

A. Defining the objective

B. Designing the questionnaire

C. Analysing the data

D. Selecting the sample population

Alternatives

(a) A, D, B, C   (b) A, B, D, C

(c) B, A, D, C   (d) D, A, B, C

20. Which of the following is/are key characteristic(s) of a perfectly competitive market?

A. Firms have the ability to set prices.

B. Entry into the market is restricted by high barriers.

C. All market participants have access to complete and accurate information.

D. Products offered by different firms are unique and not interchangeable.

Alternatives

(a) B and D
(b) A and C
(c) Only A
(d) Only C

21. A company wants to understand customer satisfaction with a newly launched product. They decide to use an online survey to collect data. If the survey is distributed only to customers who made a purchase in the last 6 months, what type of data is being collected?

(a) Secondary data
(b) Primary data
(c) Qualitative data
(d) Categorical data

22. Given that the cross-price elasticity of demand between two goods is negative, which of the following best describes the nature of the relationship between these goods?

(a) The goods exhibit a perfect substitute relationship
(b) The goods are characterised by a complementary relationship
(c) The goods demonstrate an independent or unrelated relationship
(d) The goods are categorised as normal goods

23. If the arithmetic mean of the data set (5, 8, 12, 7, 10, x) is 9, find the value of x.

(a) 13
(b) 11
(c) 14
(d) 12

24. Why is analysing unemployment data using statistical techniques crucial for economic policy making?

(a) To provide direct cash support based on the exact number of unemployed individuals
(b) To uncover trends and patterns that guide targeted policy interventions
(c) To align the unemployment rate with economic forecast predictions
(d) To generate data for media and public announcements

25. Data set is represented by a pie chart where the slice corresponding to the category 'A' occupies 30% of the total pie. If the total number of observations is 200, how many observations are in category 'A'?

(a) 40
(b) 50
(c) 60
(d) 70

26. A recent news headline reports that new environmental regulations have significantly increased the cost of producing plastic bottles.

Following the implementation of these regulations, the statements given in options are made about the effect on the supply curve for plastic bottles.

Which of these statements accurately describes the effect of the new regulations on the supply curve?

(a) The supply curve will shift to the left due to higher production costs
(b) The supply curve will shift to the right due to lower production costs
(c) The supply curve will become steeper due to increased efficiency
(d) The supply curve will become flatter due to decreased production costs

27. Sophia has a monthly budget of ₹ 12,000 for buying books and concert tickets. Initially, books cost ₹ 300 each and concert tickets cost ₹ 600 each. The budget line is given by

$$300B + 600T = ₹ 12,000$$

Recently, the price of books dropped to ₹ 150 each, while the price of concert tickets remains the same. Given this change, which of the following accurately describes the new slope of the budget line on a graph where books are on the horizontal axis and concert tickets are on the vertical axis?

(a) Becomes steeper
(b) Becomes flatter
(c) Remains unchanged
(d) Becomes horizontal

28. A researcher finds that as the hours spent on studying increases, exam scores also increase. If the correlation coefficient is found to be 0.8, what can be concluded?

(a) There is a strong positive linear relationship between hours of study and exam scores
(b) There is a weak positive linear relationship between hours of study and exam scores
(c) There is a strong negative linear relationship between hours of study and exam scores
(d) There is no linear relationship between hours of study and exam scores

29. Why do certain agricultural products often not follow the law of supply?

(a) Farmers prefer to grow more crops when prices fall
(b) Weather conditions and seasonal factors limit the amount of production
(c) The market demand for these products is constant regardless of price changes.
(d) Government subsidies always stabilise prices

30. Why might a firm experience decreasing returns to scale as it expands its production?
(a) Because the firm is utilising all its resources efficiently
(b) Because increased production leads to coordination problems and inefficiencies
(c) Because the price of inputs falls as production increases
(d) Because technological innovation is constant

31. "Price must be greater than or equal to AVC in the short-run".

Based on the statement, in the short-run, why must the price be greater than or equal to the Average Variable Cost (AVC) for a firm to continue operating?
(a) To ensure that firm can cover all its fixed costs
(b) To ensure that firm is making a profit on each unit sold
(c) To ensure that firm can cover at least its variable costs and avoid shutting down
(d) To maximise the firm's revenue in the short-run

32. I. Sampling methods are used to gather data when the population is too large.
II. Sampling error can be completely eliminated with a large sample size.
Alternatives
(a) Statement I is true and Statement II is false
(b) Statement I is false and Statement II is true
(c) Both statements are true
(d) Both statements are false

33. I. In an inclusive method of classification, the upper class limit of one class interval coincides with the lower class limit of the next class interval.
II. This method of classification is commonly used for continuous data.
Alternatives
(a) Statement I is true and Statement II is false
(b) Statement I is false and Statement II is true
(c) Both statements are true
(d) Both statements are false

34. I. In a mixed economy, all resources are owned and controlled by the government.
II. A mixed economy combines elements of both capitalism and socialism.

Alternatives
(a) Statement I is true and Statement II is false
(b) Statement I is false and Statement II is true
(c) Both statements are true
(d) Both statements are false

35. I. Producer equilibrium in the short-run can be achieved even when the firm is making a loss.
II. In the long-run, producer equilibrium requires that average revenue equals average cost.
Alternatives
(a) Statement I is true and Statement II is false
(b) Statement II is false and Statement II is true
(c) Both statements are true
(d) Both statements are false

36. "Two indifference curves never intersect each other".

In the light of the given statement, why is it impossible for two indifference curves to intersect each other?
(a) Intersecting indifference curves would imply that a consumer is indifferent between two different levels of utility, which is contradictory.
(b) Intersecting curves represent the same level of utility and thus imply that the consumer's preferences are inconsistent.
(c) The intersection of two indifference curves indicates a constant Marginal Rate of Substitution (MRS) between the goods.
(d) Intersecting indifference curves would suggest that the consumer has different preferences for the same combination of goods.

37. Economic Times, August 2024: The Wholesale Price Index (WPI) inflation rose to 2.04% in July 2024, driven by increased food prices and manufacturing costs. This marks a decrease from 3.4% in June, reflecting a cooling trend.

If the WPI inflation rate reflects a cooling trend, what does this suggest about the rate of price change in wholesale goods over the specified period?
(a) Prices are increasing rapidly
(b) Prices are decreasing rapidly
(c) The rate at which prices are increasing is slowing down
(d) Prices are stable with no significant change

38. "The product moment correlation, also known as the simple correlation coefficient, provides a precise numerical value for the degree of linear relationship between two variables, X and Y."

Which of the following statements about this type of correlation is incorrect?

(a) It can take values between −1 and +1, where −1 indicates a perfect negative linear relationship and +1 indicates a perfect positive linear relationship

(b) It is also known as Spearman's rank correlation coefficient and is suitable for ordinal data

(c) The correlation coefficient is represented by the letter r and is derived from the covariance of the two variables

(d) The linear relationship between X and Y can be described by the equation $Y = a + bX$, where a is the intercept and b is the slope of the line

39. Which of the following statements best describes 'stratified sampling'?

(a) The entire population is divided into groups, and random samples are taken from each group

(b) Every individual has an equal chance of being selected

(c) Data is collected from only one group or stratum of the population

(d) The sample is chosen based on convenience

40. If a demand curve is a vertical line, what does this imply about its elasticity?

(a) The demand is perfectly elastic

(b) The demand is unitary elastic

(c) The demand is perfectly inelastic

(d) The demand is elastic

Section B (2 Marks)

41. Match the data organisation methods with their appropriate applications

List-I (Methods)		List-II (Applications)
A. Histogram	(i)	Used to compare parts of a whole
B. Ogive	(ii)	Used to display the cumulative frequency distribution

List-I (Methods)		List-II (Applications)
C. Pie chart	(iii)	Used to show the distribution of a single variable
D. Frequency polygon	(iv)	Used for continuous data visualisation

Codes

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

42. Match List-I with List-II

List-I		List-II
A. Total revenue is maximised when marginal revenue equals marginal cost	(i)	Break-even analysis
B. Process to determine point at which business's revenue equal its total costs	(ii)	Profit maximisation point
C. Marginal revenue becomes negative as output increases beyond a certain point	(iii)	Law of diminishing marginal returns
D. When market price become equal to average revenue	(iv)	Price-taking firm

Codes

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

Direction *(Q. No. 43 to 46) There are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the appropriate answer 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 the correct explanation of Assertion (A)

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

(d) Both Assertion (A) and Reason (R) are false

43. Assertion (A) Supply is relative inelastic in the long-run than in the short-run.

Reason (R) Producers have less time to adjust production processes in response to price changes in the long-run.

44. Assertion (A) A scatter plot with points closely aligned along a straight line indicates a strong correlation between the two variables.

Reason (R) A lack of pattern in a scatter plot usually implies that changes in one variable do not correspond to changes in the other variable.

45. Assertion (A) There is direct linkage between utility with the usefulness of a commodity.

Reason (R) Almost all habitual goods are useful and they may have high utility for some individuals.

46. Assertion (A) The Laspeyres index tends to overstate inflation.

Reason (R) The Laspeyres index uses base year quantities, which may not reflect current consumption patterns.

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

A bakery, "Sweet Delights," specialises in selling a variety of cupcakes. The bakery has noticed that the demand for their cupcakes is influenced by the law of diminishing marginal utility. The data collected from a sample of 10 customers showed the following pattern of marginal utility for each additional cupcake consumed

1st Cupcake	15 Utils
2nd Cupcake	13 Utils
3rd Cupcake	10 Utils
4th Cupcake	6 Utils
5th Cupcake	2 Utils
6th Cupcake	(– 1) Utils

Additionally, 'Sweet Delights' offers a special deal where customers can buy a 'Super Saver Pack' of 6 cupcakes for a total of ₹ 300. Each cupcake individually costs ₹ 60. The bakery aims to maximise its profit while ensuring customer satisfaction.

Based on the study, the bakery decides to offer a different pricing strategy for frequent customers. Customers who buy more than 3 cupcakes get each subsequent cupcake for ₹ 40 instead of ₹ 60.

47. 'Sweet Delights' is offering a special deal where customers buying more than 3 cupcakes pay ₹ 40 for each additional cupcake beyond the third. If a customer buys 6 cupcakes, what is the total cost of the 6 cupcakes with the new pricing strategy?
(a) ₹ 300
(b) ₹ 320
(c) ₹ 360
(d) ₹ 400

48. Based on the marginal utility data provided for the cupcakes, which cupcake marks the point of satiety for the consumer?
(a) 3rd cupcake
(b) 4th cupcake
(c) 5th cupcake
(d) 6th cupcake

49. Calculate the total utility derived by a customers, if they consume 5 cupcakes.
(a) 45 utils
(b) 46 utils
(c) 50 utils
(d) 44 utils

50. Based on the data provided, at what point does the marginal utility of additional cupcakes turn negative, leading to potential dissatisfaction?
(a) 3rd cupcake
(b) 4th cupcake
(c) 5th cupcake
(d) 6th cupcake

Instructions

  1. This section consists of 5 Questions.

  2. The score achieved in this section will not be included in the total marks.

  3. If overall marks of two or more students are same, winner will be decided based on the score in this section.

  4. Participation in this section is optional and students may choose to attempt it or not.

1. Consider the following measures for a data set
Mean = 60, Median = 65, Mode = 70.
Which of the following statements is true regarding the distribution of the data?

(a) The data is skewed to the left

(b) The data is skewed to the right

(c) The data is perfectly symmetrical

(d) The data is bimodal

2. If the output levels at which the short-run Marginal Cost (MC), Average Variable Cost (AVC) and Average Total Cost (ATC) curves reach their minimums are arranged from lowest to highest, the correct sequence would be

(a) AVC, MC, ATC   (b) ATC, AVC, MC

(c) MC, AVC, ATC   (d) AVC, ATC, MC

3. In the short-run, if a firm's total cost is given by TC = $100 + 5Q + Q^2$, where Q is the quantity of output produced, what is the firm's Average Variable Cost (AVC) when Q = 10?

(a) 15   (b) 25   (c) 35   (d) 50

4. A researcher is conducting a study on the impact of cultural values on consumer behaviour. The sample consists of participants who all identify as Asian American.

Which of the following is the most accurate limitation of the researcher's study?

(a) The researcher's findings are only applicable to Asian Americans and cannot be generalised to other ethnic groups

(b) The researcher's sample lacks gender diversity, making it non-representative

(c) The researcher's conclusion is limited to Asian Americans, but the findings could potentially apply to all consumers

(d) The researcher's sample is biased because it excludes other racial and ethnic groups, making the conclusions less reliable for understanding general consumer behaviour

5. A farmer operates in a perfectly competitive wheat market and notices that his revenue is not increasing even though he is producing more wheat. What is the best explanation for this?

(a) The farmer is pricing the wheat too high.

(b) The market price of wheat has decreased due to excess supply.

(c) The farmer's marginal cost of production has risen above the market price.

(d) The market price remains constant, so total revenue remains constant.