

AUTUMN BREAK HOLIDAY HOMEWORK

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Session: 2026–27

General Instructions (For All Classes - 11th)

- 1. Prepare a practical file of at least 15 pages.
- 2. Choose any one topic from your Physical Activity Trainer book.
- 3. Paste relevant photographs and add information related to your chosen topic.
- 4. Include an Acknowledgement and a Certificate in the file.
- 5. The file must be neat, clean and well-organised.
- 6. Stick files are not allowed.
- 7. Cover and decorate the file neatly.

SUBMISSION DATE - 3 November to 10 November 2026

Complete your work carefully and submit it as instructed.

Let's make our work creative, neat, and meaningful!

PART I: CLASS 11 (SECTION C)

1. Accountancy

- Solve questions on Cash Book (10 questions) and BRS (Cash Book to Pass Book: 5 questions, Pass Book to Cash Book: 5 questions).
- Revise the entire syllabus properly for a class test immediately after the Autumn Break.
- Make a project on source documents and vouchers in detail. Specimen of each must be given along with proper description.
- Complete all pending work (if any).

2. Business Studies

- Make a project on various kinds of accounts and the account opening process in a bank. Describe various slips and vouchers used in a bank, such as: pay-in slip, withdrawal slip, cheque, etc.
- Revise the entire syllabus properly for a class test immediately after the Autumn Break.
- Complete all pending work (if any).

3. English

- Complete notebook work from both books.
- Write two posters based on Social Awareness and two based on Events.
- Write a speech on the following topics:
 1. The Importance of Mental Health Awareness Among Teenagers
 2. Gender Equality Begins at Home

4. Mathematics (Practice Question Paper)

Time: 3 hours | **Max. Marks:** 80

General Instructions: This question paper contains five sections—A, B, C, D, and E. Each section is compulsory. There are internal choices in some questions.

SECTION – A (Multiple Choice & Assertion-Reason Questions - 1 Mark Each)

1. If A and B are two sets such that $n(A) = 12$, $n(A - B) = 5$, and $n(A \cup B) = 23$, the maximum number of subsets of $(A \cap B)$ is:
(a) 128 (b) 64 (c) 256 (d) 1024

2. Let $A = \{x: x \in R, x \geq 4\}$ & $B = \{x: x \in R, x \leq 5\}$, then $A \cap B =$
 (a) $(4, 5]$ (b) $(4, 5)$ (c) $[4, 5)$ (d) $[4, 5]$
3. For two sets A and B , given $n(A \times B) = 6$ and three of the elements of $A \times B$ are $(2, 5), (4, 6), (8, 6)$. Then the remaining elements are:
 (a) $(2, 6), (4, 5), (8, 5)$ (b) $(2, 4), (4, 8), (5, 6)$ (c) $(2, 6), (4, 5), (4, 8)$ (d) $(2, 4), (4, 5), (6, 8)$
4. Range of the function $f(x) = |x - 1| + 12$ is:
 (a) $[0, \infty)$ (b) $R - [12, \infty)$ (c) $[12, \infty)$ (d) $(0, \infty)$
5. The domain of the function $f(x) = \frac{x^2+2x+1}{x^2+6x+5}$ is:
 (a) $R - \{-5, -1\}$ (b) $R - \{-3, 2\}$ (c) $R - [-2, 3]$ (d) $R - [-3, 2]$
6. $2(\sin^2 10^\circ + \sin^2 20^\circ + \sin^2 30^\circ + \dots + \sin^2 90^\circ)$ is equal to:
 (a) 5 (b) 8 (c) 10 (d) 11
7. If $\tan \theta = -\frac{4}{3}$, then $\sin \theta$ is:
 (a) $-\frac{4}{5}$ but not $\frac{4}{5}$ (b) $-\frac{4}{5}$ or $\frac{4}{5}$ (c) $\frac{4}{5}$ but not $-\frac{4}{5}$ (d) none of these
8. $\sqrt{-9} \times \sqrt{-25} = ?$
 (a) 15 (b) -15 (c) $15i$ (d) $-15i$
9. $i^{91} = ?$
 (a) -1 (b) 1 (c) i (d) $-i$
10. Slope of a line which cuts off intercepts of equal lengths on the axes is:
 (a) -1 (b) 0 (c) 2 (d) $\sqrt{3}$
11. If x is a real number and $|x| < 3$, then:
 (a) $x \geq 3$ (b) $-3 < x < 3$ (c) $x \leq 3$ (d) $-3 \leq x \leq 3$
12. If $-3x + 17 < -13$, then:
 (a) $x \in (10, \infty)$ (b) $x \in [10, \infty)$ (c) $x \in (-\infty, 10)$ (d) $x \in (-10, 10)$
13. Everybody in a room shakes hands with everybody else. The total number of handshakes is 66. The total number of persons in the room are:
 (a) 11 (b) 12 (c) 13 (d) 14
14. If ${}^nC_{12} = {}^nC_8$, then ${}^{22}C_n$ is:
 (a) 231 (b) 252 (c) 171 (d) 225
15. The coefficients of x^2 and x^3 in the expansion of $(3 + ax)^9$ are equal. Then a is:
 (a) $\frac{7}{9}$ (b) $\frac{9}{7}$ (c) $-\frac{9}{7}$ (d) $-\frac{7}{9}$
16. The value of y so that the line through $(3, y)$ and $(2, 7)$ is perpendicular to the line through $(-1, 4)$ and $(0, 5)$ is:
 (a) 6 (b) 7 (c) 8 (d) 9
17. The third term of a G.P. is 4. The product of its first 5 terms is:
 (a) 4^3 (b) 4^4 (c) 4^5 (d) none of these

18. Which term of the G.P. $2, 2\sqrt{2}, 4, \dots$ is 256?

(a) 14th (b) 15th (c) 16th (d) none of these

19. **Assertion (A):** If $f(x) = x + \frac{1}{x}$, then $[f(x)]^3 = f(x^3) + 3f\left(\frac{1}{x}\right)$.

Reason (R): If $f(x) = (x - a)^2(x - b)^2$, then $f(a + b)$ is 0.

(Choose from standard options a, b, c, d)

20. **Assertion (A):** Simplest form of i^{-35} is $-i$.

Reason (R): Additive inverse of $1 - i$ is equal to $-1 + i$.

(Choose from standard options a, b, c, d)

SECTION – B (Very Short Answer Type - 2 Marks Each)

- **Q21:** Find the value of $\cos 55^\circ + \cos 125^\circ + \cos 300^\circ$. *(OR Show that $\sqrt{2 + \sqrt{2 + 2\cos 4x}} = 2\cos x$)*
- **Q22:** Expand $(1 - 2x)^5$ using binomial theorem.
- **Q23:** Solve the inequality, $3x - 5 < x + 7$, when: (i) x is a natural number, (ii) x is an integer.
- **Q24:** Find equation of the line parallel to $x - 7y + 5 = 0$ and having x -intercept 3.
- **Q25:** Write the modulus function and draw its graph also. *(OR Assume that $A = \{1, 2, 3, \dots, 14\}$. Define a relation R from A to A by $R = \{(x, y) : 3x - y = 0, \text{ such that } x, y \in A\}$. Determine and write down its range and domain.)*

SECTION – C (Short Answer Type - 3 Marks Each)

- **Q26:** If $z_1 = 2 - i$, $z_2 = -2 + i$. Find: (i) $\operatorname{Re}\left(\frac{z_1 z_2}{z_1}\right)$, (ii) $\operatorname{Im}\left(\frac{1}{z_1 z_1}\right)$, (iii) $z_1 z_2$.
- **Q27:** A Mathematics question paper consists of 10 questions divided into two parts, Part I and Part II, each containing 5 questions. A student is required to attempt 6 questions in all, taking at least 2 questions from each part. In how many ways can a student select the questions?
(OR In how many ways can final eleven be selected from 15 cricket players if (i) one of them must be included, (ii) one of them in bad form must be excluded, (iii) two of them being leg spinners, one and only one leg spinner must be included.)
- **Q28:** If $U = \{a, b, c, \dots, k\}$; $A = \{a, c, e, g, i, k\}$; $B = \{b, c, f, g, k\}$; $C = \{e, g, h, k\}$, then find (i) A' , (ii) $A - B$, (iii) $A \cup B$.
(OR Let A, B, C be sets such that $A \cup B = A \cup C$ and $A \cap B = A \cap C$. Show that $B = C$.)
- **Q29:** Find $(a + b)^4 - (a - b)^4$. Hence, evaluate $(\sqrt{5} + \sqrt{4})^4 - (\sqrt{5} - \sqrt{4})^4$.
- **Q30:** If $A + B = \frac{\pi}{4}$, prove that $(\cot A - 1)(\cot B - 1) = 2$. *(OR Find the value of $\tan(\pi/8)$.)*
- **Q31:** A solution of 9% acid is to be diluted by adding 3% acid solution to it. The resulting mixture is to be more than 5% but less than 7% acid. If there is 460 liters of 9% acid solution, how many liters of 3% solution will have to be added?

SECTION – D (Long Answer Type - 5 Marks Each)

- **Q32:** Find the rank of the word MONDAY in dictionary order of all arrangements of the word MONDAY, and also find the word which will be at rank 400.
- **Q33:** If a and b are the roots of $x^2 - 3x + p = 0$ and c and d are the roots of $x^2 - 12x + q = 0$, where a, b, c, d form a G.P. Prove that $(q + p) : (q - p) = 17 : 15$.
(OR The sum of two numbers is 6 times their geometric mean, show that the numbers are in the ratio $(3 + 2\sqrt{2}) : (3 - 2\sqrt{2})$.)
- **Q34:** If $\tan x = \frac{5}{12}$ and x lies in the 2nd quadrant, find the value of $\sin \frac{x}{2}$, $\cos \frac{x}{2}$, $\tan \frac{x}{2}$.
(OR Show that $\cos 20^\circ \cos 40^\circ \cos 60^\circ \cos 80^\circ = 1/16$.)
- **Q35:** Find equation of the line passing through the point $(2, 2)$ and cutting off intercepts on the axes whose sum is 9.

SECTION – E (Case-Study Based - 4 Marks Each)

- **Q36 (Highway & Village Coordinates):** Villages of Shanu and Arun are 50 km apart on Delhi-Agra highway ($X'X$). Another highway YY' crosses at $O(0, 0)$. A small local road PQ crosses both highways at points A and B such that $OA = 10\text{km}$ and $OB = 12\text{km}$. Barun's village B is 12 km from O and Jeetu's is 15 km from O .
 1. What are the coordinates of A ? (a) $(10, 0)$ (b) $(10, 12)$ (c) $(0, 10)$ (d) $(0, 15)$
 2. What is the equation of line AB ? (a) $5x + 6y = 60$ (b) $6x + 5y = 60$ (c) $x = 10$ (d) $y = 12$
 3. What is the distance of AB from $O(0, 0)$? (a) 60 km (b) $\frac{60}{\sqrt{61}}\text{km}$ (c) $\sqrt{61}\text{km}$ (d) 60 km
 4. What is the slope of line AB ? (a) $\frac{6}{5}$ (b) $\frac{5}{6}$ (c) $-\frac{6}{5}$ (d) $\frac{10}{12}$
- **Q37 (Chessboard Grains Problem):** A chessboard is square with 64 squares. The inventor suggested a reward of 1 gram of wheat for the first square, 2 grams for the second, 4 grams for the third, and so on, doubling each time.
 1. How many grains would have to be given to the inventor for the 30th square?
 2. Write the formula to find the sum to n terms of a Geometric series.
 3. How many grains would have to be given to the inventor in all?
- **Q38 (Set Theory Letter Problem):** Given $A = \{x: x \text{ is a letter in ILOVE MATHEMATICS}\}$ and $B = \{x: x \text{ is a letter in ILOVE STATISTICS}\}$.
 1. Find $A \cup B$.
 2. Find $A \cap B$.
 3. Find the number of proper subsets of set B (or set A).

1. टीवी/दूरदर्शन खबरों के विभिन्न चरणों को लिखिए।
2. संचार की परिभाषा लिखते हुए संचार के साधनों के नाम लिखिए।
3. निम्नलिखित में से किसी एक विषय पर फीचर लिखिए:

(क) मेरी नज़र में 2047 का भारत

(ख) नियमित व्यायाम और स्वास्थ्य

(ग) मेरे जीवन की यादगार घटना
4. निम्नलिखित में से किसी एक विषय पर अप्रत्याशित लेख लिखिए:

(क) परीक्षा के प्रथम दिन मेरा देर से परीक्षा भवन पहुँचना

(ख) मेरे घर के पास का पार्क

(ग) मेरे प्रिय टाइमपास
5. समाचार की परिभाषा लिखते हुए समाचार लेखन की उल्टा पिरामिड शैली को समझाइए।
6. विशेष लेखन से आप क्या समझते हैं? बीट और डेस्क को समझाइए।
7. परियोजना कार्य:-

(क) कला समेकित कार्य - युग्मित राज्य अरुणाचल प्रदेश की भौगोलिक स्थिति, इतिहास, खानपान, नृत्य, वेशभूषा, भ्रमण स्थल, ऐतिहासिक स्थान, कवि, लोक संगीत, स्वतंत्रता सेनानी, भाषाएं, साहित्यकार आदि में से किसी एक का छायाचित्रों के साथ वर्णन करें।

(ख) किसी कवि/लेखक का जीवन परिचय व साहित्य में उसका योगदान, जल का महत्व और संरक्षण के उपाय, नारी शक्ति का समाज में योगदान, भारतीय सिनेमा का इतिहास, स्वतंत्रता संग्राम का इतिहास, जनसंचार के साधन, किसी स्वतंत्रता सेनानी का जीवन परिचय, आधुनिक जीवन शैली, विज्ञापन और हमारा जीवन, नई शिक्षा नीति, एक भारत श्रेष्ठ भारत, आज़ादी का अमृत महोत्सव, अंतरिक्ष में भारत के बढ़ते कदम, पर्यावरण के प्रति हमारा दायित्व, किसी खिलाड़ी या वैज्ञानिक का जीवन परिचय (इनमें से कोई एक)।
8. रेडियो और टेलीविजन में अंतर लिखते हुए समाचार के ककारों को लिखिए।
9. पत्रकारिता क्या है? पत्रकारिता के विभिन्न प्रकारों को लिखिए।
10. अपना आत्म विश्लेषण करते हुए अपनी क्षमताओं और कमजोरियों पर चिंतन करें और अपनी 5 खूबियों और 5 कमियों को लिखें

एवं उनको सुधारने के उपाय भी लिखें।

11. पढ़ाए गए पाठ्यक्रम का अध्ययन करना व याद करना।

नोट:- प्रश्न संख्या 7 परियोजना फ़ाइल में एवं शेष सभी प्रश्न जनसंचार की कॉपी में करें। धन्यवाद।

CLASS 11 C - ECONOMICS (Code 030)

KENDRIYA VIDYALAYA NO 2 HINDAN

SECTION A: STATISTICS FOR ECONOMICS

Questions 1–10: Multiple-Choice Questions (1 mark each)

- Which of the following is a diagrammatic method of presenting data?
(a) Frequency distribution (b) Bar diagram (c) Individual series (d) Classification table
- A histogram is most appropriate for presenting:
(a) Qualitative data (b) Continuous frequency distribution (c) Individual observations only (d) Chronological data only
- The sum of deviations of observations from their arithmetic mean is always:
(a) One (b) Zero (c) Positive (d) Negative
- Which measure is most suitable for finding the most popular shoe size?
(a) Arithmetic mean (b) Median (c) Mode (d) Range
- The median divides a series into:
(a) Two equal parts (b) Three equal parts (c) Four equal parts (d) Five equal parts
- Which measure is least affected by extremely high or low values?
(a) Arithmetic mean (b) Median (c) Weighted mean (d) Simple mean
- A cumulative frequency distribution is particularly useful for calculating:
(a) Median (b) Range (c) Total product (d) Marginal product
- The arithmetic mean of 4, 6, 8, 10 and 12 is:
(a) 6 (b) 7 (c) 8 (d) 10
- A frequency polygon can be constructed using:
(a) Class boundaries only (b) Class marks and frequencies (c) Cumulative frequencies only (d) Percentages only
- If every observation is increased by 5, its arithmetic mean will:
(a) Remain unchanged (b) Increase by 5 (c) Decrease by 5 (d) Become five times

Questions 11–12: Short-Answer Questions (3 marks each)

- **Q11. Bar Diagram and Histogram:** Differentiate between a bar diagram and a histogram on any three grounds.
- **Q12. Arithmetic Mean:** Calculate the arithmetic mean using the direct method: Observations (x): 10, 20, 30, 40, 50; Frequencies (f): 2, 3, 4, 3, 2.

Questions 13–15: Application and Numerical Questions (4 marks each)

- **Q13. Cumulative Frequency:** The daily expenditure of 40 students is given below. (a) Identify the type of frequency distribution (1). (b) Prepare a cumulative frequency column (2). (c) State one use of cumulative frequency (1).

Expenditure	Number of students
0–20	5
20–40	9
40–60	14
60–80	8
80–100	4

- **Q14. Median:** Calculate the median of the following discrete frequency distribution: Values (x): 10, 20, 30, 40, 50; Frequencies (f): 3, 5, 8, 6, 2.
- **Q15. Mode:** Calculate the mode of the following grouped frequency distribution using the appropriate formula.

Marks	Frequency
0–10	4
10–20	7

Marks	Frequency
20–30	12
30–40	9
40–50	5

Questions 16–17: Long-Answer / Competency-Based Questions (6 marks each)

- **Q16. Arithmetic Mean (Assumed Mean Method):** Monthly income of 50 households is given below. (a) Calculate the arithmetic mean using the assumed mean method (4). (b) Explain one limitation of arithmetic mean (2).

Monthly income	Households
10,000–20,000	5
20,000–30,000	10
30,000–40,000	15
40,000–50,000	12
50,000–60,000	8

- **Q17. Median (Grouped Data):** Marks obtained by students are given below. (a) Calculate the median (4). (b) Explain why median may be preferred when a few observations are extremely high or low (2).

Marks	Students
0–10	3

Marks	Students
10–20	7
20–30	15
30–40	10
40–50	5

SECTION B: INTRODUCTORY MICROECONOMICS

Questions 18–22: Very Short-Answer Questions (2 marks each)

- **Q18. Production Function:** Define a production function. Distinguish between the short-run and long-run production functions.
- **Q19. Consumer Equilibrium:** What is consumer equilibrium? State the condition of consumer equilibrium under the utility analysis approach for a single commodity.
- **Q20. Law of Demand:** State the Law of Demand. Mention any two assumptions underlying it.
- **Q21. Elasticity of Demand:** Define price elasticity of demand. Write its formula using the percentage method.
- **Q22. Total, Average and Marginal Product:** Define total product, average product and marginal product. Write the formula for calculating average product.

Questions 23–25: Short-Answer Questions (3 marks each)

- **Q23. Consumer Equilibrium (One Commodity):** Explain the condition of consumer equilibrium in the case of a single commodity using the marginal utility approach. State the role of marginal utility of money.
- **Q24. Downward-Sloping Demand Curve:** Explain any three reasons why the demand curve generally slopes downward from left to right.
- **Q25. Relationship between TP and MP:** Explain the relationship between total product and marginal product with the help of a suitable numerical example.

Questions 26–29: Application-Based Questions (4 marks each)

- **Q26. Numerical (Consumer Equilibrium):** A consumer purchases a commodity at ₹10 per unit. Marginal utility of

money is constant at 2 utils per rupee. Marginal utilities from successive units are 30, 24, 20, 16 and 12 utils. (a) Calculate the marginal utility of money expenditure on the commodity (1). (b) Identify the quantity at which the consumer reaches equilibrium (2). (c) State the equilibrium condition (1).

- **Q27. Numerical (Elasticity of Demand):** The price of a commodity falls from ₹20 to ₹16 per unit, and quantity demanded rises from 50 to 70 units. Calculate price elasticity of demand using the percentage method, taking original price and quantity as the base. Interpret the result.
- **Q28. Competency-Based (Law of Demand):** A shopkeeper reduces the price of notebooks from ₹50 to ₹40. Quantity demanded increases from 100 to 150 notebooks per week. (a) Identify the law illustrated (1). (b) Explain the relationship between price and quantity demanded (1). (c) Distinguish between extension of demand and increase in demand (2).
- **Q29. Production Function (Numerical):** Complete the table by calculating average product and marginal product wherever required.

Units of labour	Total product	Average product	Marginal product
1	10	?	10
2	24	?	?
3	36	?	?
4	44	?	?

Questions 30–34: Long-Answer / Competency-Based Questions (6 marks each)

- **Q30. Consumer Equilibrium (Two Commodities):** Explain consumer equilibrium in the case of two commodities using the utility analysis approach. State the condition $MU_x/P_x = MU_y/P_y$. Explain why a consumer who has not reached equilibrium can increase total utility by reallocating expenditure.
- **Q31. Law of Demand and Demand Curve:** (a) Explain the Law of Demand with the help of a demand schedule (2). (b) Draw a properly labelled demand curve (2). (c) Explain any two factors, other than the price of the commodity, that can cause a shift in the demand curve (2).
- **Q32. Elasticity of Demand:** Explain the different degrees of price elasticity of demand with suitable diagrams or examples: perfectly elastic, perfectly inelastic, relatively elastic, relatively inelastic and unitary elastic demand.
- **Q33. Production Function and Law of Variable Proportions:** Explain the Law of Variable Proportions. Describe its three stages with the help of a schedule and a properly labelled diagram.

- **Q34. Case Study (Consumer and Producer Decisions):** A family compares satisfaction from different goods before deciding how to spend its monthly budget. A local bakery varies the number of workers while using its existing ovens and kitchen space. (a) Which concept explains the family's best allocation of expenditure? (1) (b) State the condition of consumer equilibrium for two commodities (2). (c) Identify the production concept illustrated by the bakery (1). (d) Explain why marginal product may eventually decline when more workers are employed while kitchen space remains fixed (2).

TOPICS FOR PROJECT FILES (CLASS 11 ECONOMICS)

Roll Nos.	Project Topics
1 – 5	Economics and Economy
6 – 10	Central Problem of an Economy
11 – 15	Consumer Equilibrium
16 – 20	Theory of Demand
21 – 25	Elasticity of Demand
26 – 30	Production Function
31 – 35	Concept of Economics and Significance of Economics
36 – 40	Collection of Data
41 – 45	Census and Sample Method of Collection of Data

Roll Nos.	Project Topics
46 – 50	Organisation of Data
51 – 55	Presentation of Data: Textual and Tabular Presentation
56 – 61	Arithmetic Line Graph or Time Series Graphs, Measures of Central Tendency: Arithmetic Mean