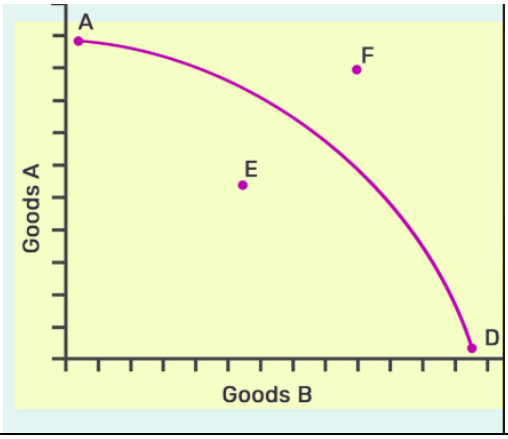
KOTHARI INTERNATIONAL SCHOOL, NOIDA
ANNUAL EXAMINATION SESSION 2025-26
GRADE: 11 SUBJECT: ECONOMICS (030)
SET A- ANSWER KEY

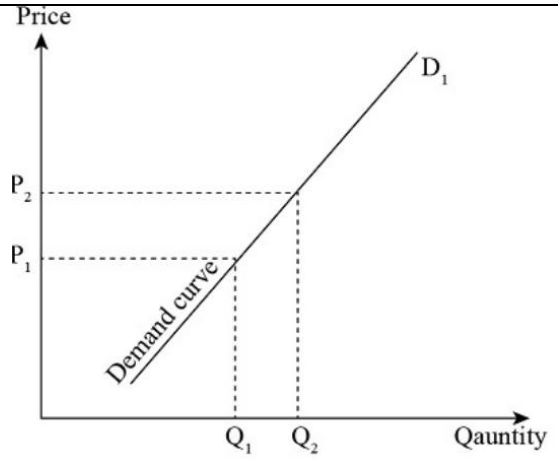
DATE & DAY: WEDNESDAY, 11 FEBRUARY, 2026 **TIME ALLOWED: 3 HOURS**
NAME: _____ **MAXIMUM MARKS: 80**

GENERAL INSTRUCTIONS:

This Question Paper contains 34 questions.
1-mark questions are Very Short Answer Type Questions and are to be answered in 20-30 words/ Multiple Choice Questions
3 marks questions are Short Answer Type Questions and are to be answered in 50-80 words.
4 marks questions are Short Answer Type Questions and are to be answered in 60-90 words.
6 marks questions are Long Answer Type Questions and are to be answered in 80-120 words.

SECTION A – MICRO ECONOMICS		
Q1.	When production is zero, total cost will be: (a) zero (b) equal to variable cost (c) equal to fixed cost (d) equal to marginal cost **ANS:** **C : Equal to Fixed Cost**	**(1)**
Q2	Sketch a PPC for an economy that produces Phones and watches. Identify the desirable but unattainable point in the diagram. **ANS: Point F is the desirable but unattainable point in the diagram as it lies outside the PPC.**  	**(1)**
Q3	In the following question, a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct alternative among those given below:	**(1)**

	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 and 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 **Assertion (A):** The Indian Government should implement stricter environmental regulations to reduce air pollution; is a normative statement. **Reason (R):** Normative Economics deals with what ought to be done according to values and opinions. **ANS: A**	
Q4	Identify the correct sequence of alternatives given in Column II by matching them with respective items in Column I: **Column I** / **Column II** (a) Consumer Equilibrium — (i) When consumption of an additional unit leads to dissatisfaction (b) TU — (ii) $\frac{MUx}{Px} = \frac{MUy}{Py} = MUm$ (c) MU Curve — (iii) Slopes downward from left to right (d) Negative MU — (iv) $\sum$ MU **Alternatives:** (a) A – (iv), B – (iii), C – (i), D – (ii) (b) A – (ii), B – (iv), C – (iii), D – (i) (c) A – (iii), B – (i), C – (iv), D – (ii) (d) A – (ii), B – (iii), C – (iv), D – (i) **ANS: B**	**(1)**
Q5	State any two properties of the Indifference Curve. **ANS:** **(a) IC's do not intersect each other.** **(b) Higher IC has higher satisfaction**	**(1)**

Q6	 On the basis of the above diagram, identify the type of good whose demand curve is shown here? (a) Normal good (b) Inferior good (c) Giffen good (d) All of these **ANS: C**	**(1)**
Q7	'The government in India keeps raising taxes on narcotics leading to a rise in price of this commodity. But the fall in demand is insignificant. How do you explain this phenomenon? **ANS: Inelastic Price Elasticity of Demand**	**(1)**
Q8	The stage of Negative Returns sets in when: (a) MP is diminishing (b) MP is rising (c) MP is negative (d) None of these **ANS: C**	**(1)**
Q9	What does Break- even point indicate? (a) TR >TC (b) TR < TC (c) TR = TC (d) TC = 0 **ANS: C**	**(1)**
Q10	If TR = ₹25 and TC = ₹ 37, it is a case of: (a) Abnormal profit (b) Normal Profit (c) Sub – normal Profit (d) Break- even point **ANS: C**	**(1)**
Q11	What is the impact on Equilibrium Price and Equilibrium Quantity when Increase in Demand >Increase in Supply? Sketch diagram also. ANS: **Impact on Equilibrium when Increase in Demand > Increase in Supply** **When Increase in Demand > Increase in Supply**	**(3)**

Impact on Equilibrium:

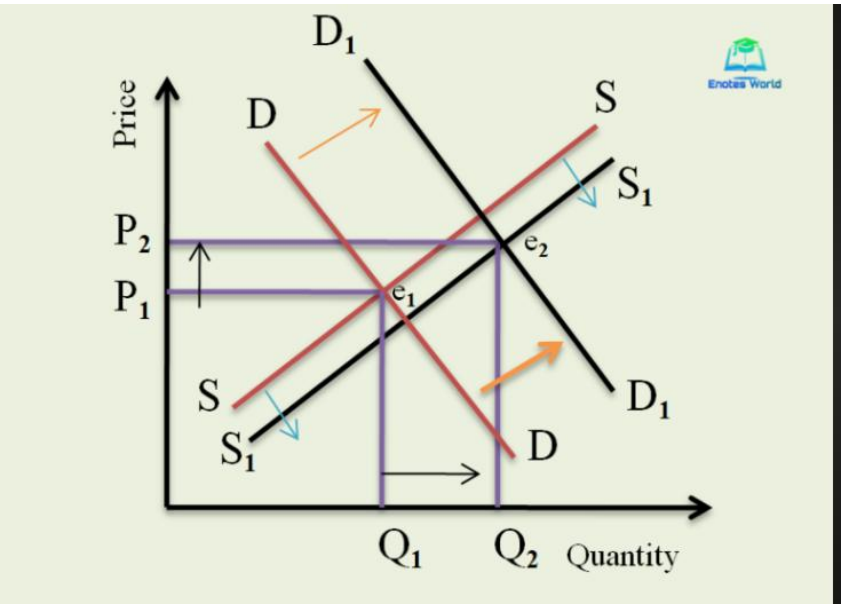
- **Equilibrium Price: Rises (Increases)** ⬆️
- **Equilibrium Quantity: Increases** ⬆️

Why?

Both demand and supply increase, so **quantity definitely increases**.

But since **demand increases more than supply**, there is **excess demand**, which **pushes the price up**.

🔹



Q12. When price of a commodity falls by 30%, the quantity supplied decreases by 35%. Find out its elasticity of supply? **(3)**

ANS:

Elasticity of Supply (Es) is calculated as:

$$\text{Es} = \frac{\%\text{ change in quantity supplied}}{\%\text{ change in price}}$$

Given:

- Price falls by **30%**
- Quantity supplied falls by **35%**

$$\text{Es} = \frac{-35\%}{-30\%} = \frac{35}{30} = 1.17\ (\text{approx})$$

✅ **Answer:**

Elasticity of Supply = 1.17

📌 **Conclusion:**

Since elasticity of supply is **greater than 1**, the supply is **elastic**.

Q13.		(4)

Analyse the scenario given below and answer the question that follows:

In a local farmers market in India, several farmers are selling organic tomatoes. All the tomatoes are identical in quality and size. The price of tomatoes is set by the market, and the farmers are unable to influence it individually. The government has no restrictions on the number of sellers and anyone can start selling tomatoes.
Below is the market data from the previous month:

Price of Tomatoes (Per kg in ₹)	Quantity Supplied
30.00	1,000
35.00	1,200
40.00	1,500
45.00	1,800
50.00	2,100

(a) Given the conditions of the market and the table showing price and quantity supplied of tomatoes, identify the market structure in the scenario as described above.
(b) Comment on the Supply Curve based on the Supply Schedule given to you.
(c) State the Law governing the schedule.
(d) Draw the Firm's Demand Curve best representing the market structure identified by you.

ANS:
(a) Identification of Market Structure
The market described has the following features:

- Large number of sellers (many farmers)
- Homogeneous product (identical organic tomatoes)
- Price is fixed by the market; individual farmers are **price takers**
- Free entry and exit (no government restrictions)

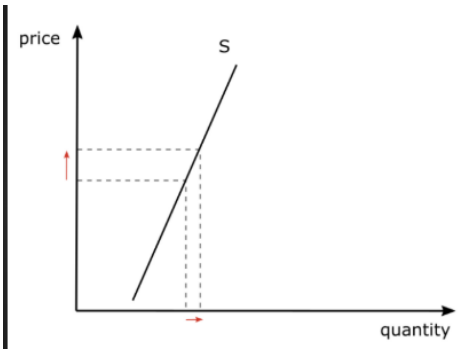
Market Structure:
Perfect Competition

(b) As **price increases**, **quantity supplied increases.**This shows a **direct relationship between price and quantity supplied**
Conclusion:
The **supply curve is upward sloping from left to right**, indicating a positive relationship between price and quantity supplied.

	(c) Law Governing the Schedule The supply schedule follows the **Law of Supply**. **Law of Supply (Statement):** *Other things remaining constant, quantity supplied of a commodity increases with a rise in its price and decreases with a fall in its price.* (d) Firm's Demand Curve under Perfect Competition (It is a **horizontal straight line parallel to the X-axis**) markdown Price | |———————— D = AR = MR | | | |_____ Quantity	
Q14	Explain any four characteristic features of a Perfectly Competitive Market. ANS: Here are **any four characteristic features of a Perfectly Competitive Market**, explained clearly in **CBSE-friendly language**:	**(4)**
	1. Large Number of Buyers and Sellers There are a very large number of buyers and sellers in the market. Each buyer and seller is so small that no one can influence the market price. Hence, all firms are **price takers**.	
	2. Homogeneous Product All firms sell **identical products** in terms of quality, size, colour and features. Because of this, consumers do not prefer the product of one firm over another, and there is **no price difference**.	
	3. Free Entry and Exit of Firms Firms are free to **enter or leave** the industry at any time. This ensures that in the long run, firms earn **only normal profits**.	
	4. Perfect Knowledge Buyers and sellers have **complete knowledge** about prices, quality of the product and market conditions. This prevents any firm from charging a higher price than the market price.	
Q15	What will happen if the price prevailing in the market is: (i) Above the equilibrium price? (ii) Below the equilibrium price? ANS: **(i) When Market Price is Above the Equilibrium Price** • **Quantity supplied > Quantity demanded** • This leads to **excess supply (surplus)** in the market • Sellers are unable to sell all their goods • To clear excess stock, sellers **reduce the price**	**(4)**

	• Price continues to fall **till equilibrium price is reached** **Result:** Price falls back to equilibrium due to surplus.	
	(ii) When Market Price is Below the Equilibrium Price • **Quantity demanded > Quantity supplied** • This leads to **excess demand (shortage)** in the market • Buyers compete with each other • Buyers are willing to **pay a higher price** • Price continues to rise **till equilibrium price is reached** **Result:** Price rises back to equilibrium due to shortage.	
Q16	CASE STUDY A popular fast-food chain, "Burgers & Fries," operates across multiple cities. The chain offers a variety of food items, including burgers, fries, and shakes. Recently, due to rising demand, the management has noticed the following relationship between the price of their signature burger and its quantity supplied: | Price of Burger (₹)	Quantity Supplied (Burgers per day)
---	---
120	500
130	550
140	580
150	590
160	600 | While the chain can increase its supply to meet higher demand, the owner is concerned about the limitations of kitchen space and the availability of fresh ingredients that affect the production process **Q16.1:** **Which of the following statements best describes the supply and elasticity of supply for the fast-food chain's signature burger?** (a) The supply curve is upward sloping, and the price elasticity of supply is elastic (E, > 1), suggesting that the fast-food chain can easily increase the number of burgers supplied with price increases. (b) The supply curve is upward sloping, and the price elasticity of supply is inelastic (E, < 1), due to limitations like kitchen space and availability of ingredients. (c) The supply curve is perfectly elastic, meaning the fast-food chain can supply any number of burgers at the given price. (d) The supply curve is perfectly inelastic, suggesting the fast-food chain cannot increase its supply of burgers, no matter the price ANS: From the given data, as **price increases**, **quantity supplied increases**, but **at a decreasing rate** due to constraints like kitchen space and fresh ingredients. So: • Supply curve → **Upward sloping** • Elasticity of supply → **Inelastic** (increase in quantity supplied is proportionately less than increase in price) **Correct option:** **(b) The supply curve is upward sloping, and the price elasticity of supply is inelastic (Es < 1), due to limitations like kitchen space and availability of ingredients.**	**(6)**

Q16.2:



On the basis of the above diagram, identify the elasticity of supply.

(a) Es = 1
(b) Es >1
(c) Es < 1
(d) None of the above

ANS: Looking at the data/diagram:

- Price increases significantly
- Quantity supplied increases only slightly

This indicates **less responsiveness of supply to price**.
Correct option:
(c) Es < 1

Q16.3

On the basis of the given information answer the following question:

Price (₹)	Supply (Units)
5	10
10	20
15	30

Identify the shape of the Supply Curve.

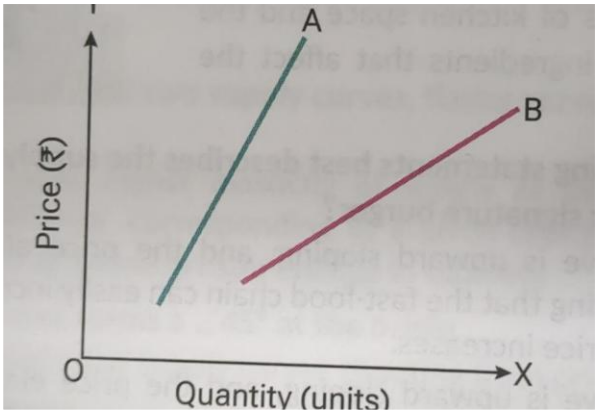
(a) Downward sloping from left to right
(b) A straight line downward sloping
(c) Upward sloping from left to right
(d) None of these

ANS: Here:

- When price increases, supply increases proportionately
- The relationship is linear and positive

So the supply curve will be **upward sloping from left to right**.
✅ **Correct option:**
(c) Upward sloping from left to right

Q16.4:



Identify the curves A& B given in the above diagram as short period supply curve and long period supply curve. Also, explain why supply is more responsive to price in the Long Period compared to Short Period.

ANS:

Identification of curves

- **Curve A → Short Period Supply Curve**
- **Curve B → Long Period Supply Curve**

Explanation

Supply is **more responsive to price in the long period** because:

- Firms get enough time to **expand kitchen space**
- They can **hire more workers**
- Better contracts for **regular supply of fresh ingredients**
- New machines and technology can be installed

In the **short period**, supply is **less elastic** because:

- Some factors like space and equipment are **fixed**
- Immediate increase in production is limited

👉 Hence, the **Long Period Supply Curve is flatter (more elastic)** than the **Short Period Supply Curve**.

Q17 Complete the following table: **(6)**

Output	Average Fixed Cost	Marginal Cost	Average Variable Cost	Average Cost
1	60	20	-	-
2	-	-	19	-
3	20	-	18	-
4	-	18	-	-
5	12	-	-	31

ANS:

Key formulas used

- **AFC = TFC / Q**
- **AVC = TVC / Q**
- **AC = AFC + AVC**
- **MC = Change in TVC**

✅ Completed Table

Output	AFC	MC	AVC	AC
1	60	20	20	80
2	30	18	19	49
3	20	16	18	38
4	15	18	18	33
5	12	23	19	31

SECTION B – STATISTICS

Q18 What does a CPI larger than 100 indicate? **(1)**

(a) The family should adjust its Budget.
(b) Higher Cost of living necessitates an upward adjustment in wages and salaries.
(c) Consumers should reduce the consumption of food items.
(d) The Whole Sale Price should be reduced.

ANS: B

Q19 Read the following statements carefully and choose the correct alternative among those given below: **(1)**

Statement 1: While constructing Index Number, weights are accorded to different commodities according to their relative significance.
Statement 2: Index numbers help to ascertain the living standards of the people.

Alternatives:
(a) Both the statements are true.
(b) Both the statements are false.
(c) Statement 1 is true and Statement 2 is false.
(d) Statement 2 is true and Statement 1 is false.

ANS: A

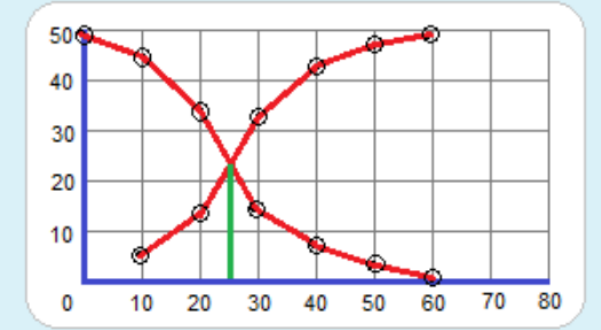
Q20 In the following question, a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct alternative among those given below: **(1)**

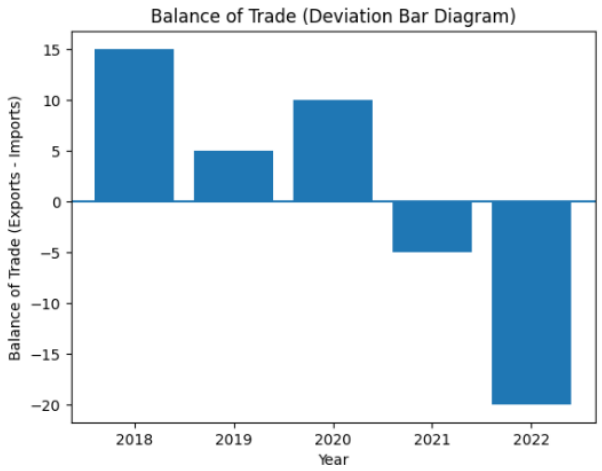
Alternatives:
(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
(b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A)
(c) Assertion (A) is true but Reason (R) is false
(d) Assertion (A) is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

Assertion (A): Haphazard Sampling does not allow every item of the universe an equal chance of being selected in the sample.
Reason (R): Convenience Sampling is a form of haphazard sampling.

ANS: B

Q21	Which of the following data is Statistics? (a) Mohan has ₹ 100 in his pocket. (b) The literacy rate in China is more than the literacy rate in Indai. (c) 21.9 % of the total population of India lives below the poverty line while that of China is 28.6% (d) A cow has 4 legs. **ANS: C**	**(1)**
Q22	What are the essentials of a good sample? ANS: **A good sample is one that truly represents the entire universe. The essential features of a good sample**	**(1)**
	Essentials of a Good Sample 1. **Representativeness** The sample should reflect all important characteristics of the universe so that conclusions drawn are valid for the whole population.	
	2. **Adequate Size** The sample size should be **neither too small nor too large**. A reasonably large sample gives more reliable results.	
	3. **Random Selection** Every item of the universe should have an **equal chance of being selected**, reducing bias.	
	4. **Free from Bias** The selection process should be objective and impartial. Personal preference or convenience should not influence selection.	
	5. **Homogeneity** The universe from which the sample is drawn should be **homogeneous** in nature to ensure accuracy of results.	
	6. **Economy and Practicability** A good sample should save **time, cost and effort** while still providing reliable information.	
Q23	Fill in the blanks with the right word or words from common understanding: ____ _____, Power, Light and _____ is the Commodity Group that includes 16 items like Coal, Petroleum Products, and its weightage is _____ (64.23/ 13.15) ANS: **Filled statement (as one line):** **Fuel, Power, Light and Lubricants** is the Commodity Group that includes 16 items like Coal, Petroleum Products, and its weightage is **13.15**.	**(1)**
Q24	When two variables change in a constant proportion, it is called: (a) Linear Correlation (b) Non – linear Correlation (c) Partial Correlation (d) Good Correlation **ANS: A**	**(1)**
Q25	Give any two sources of Secondary data.	**(1)**

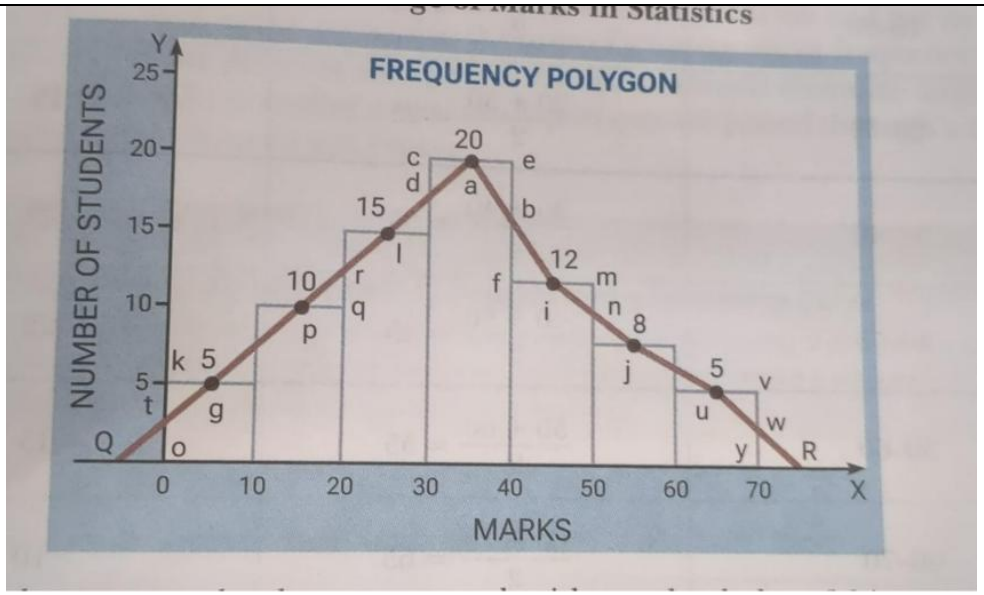
	ANS: **Published and unpublished sources**	
Q26	Read the statement given below and fill in the blanks with the most appropriate answer: 'A news agency requires regular and continuous flow of information from a large area in the least time possible.' Such an agency should rely upon _____ as its primary source of data collection.__ **ANS: Local Correspondents**	**(1)**
Q27	Identify the Median and the number of the Item from the given Ogive Curve.  **ANS: 23rd Item and Median is 25**	**(1)**
Q28	Calculate Mode from the following particulars: **Daily Wage (₹)** | 100-200 | 200-300 | 300-400 | 400-500 | 500-600 **Frequency** | 5 | 12 | 19 | 11 | 6 ANS: $$\text{Mode} = l + \left(\frac{f_1 - f_0}{2f_1 - f_0 - f_2} \right) \times h$$ • lll = lower limit of modal class = **300** • hhh = class width = **100** • f1f_1f1 = frequency of modal class = **19** • f0f_0f0 = frequency of preceding class (200–300) = **12** • f2f_2f2 = frequency of succeeding class (400–500) = **11** **Substitute in the formula** $$\text{Mode} = 300 + \left(\frac{19 - 12}{2(19) - 12 - 11} \right) \times 100$$ $$= 300 + \left(\frac{7}{15} \right) \times 100$$ $$= 300 + 46.67$$	**(3)**

	☑ **Mode = ₹346.67 (approximately)**	
Q29	Show the Balance of Trade with the help of a Deviation Bar Diagram. (Note: Balance of Trade = Exports of Goods – Imports of Goods) **Year** | **2018** | **2019** | **2020** | **2021** | **2022** **Exports of Goods** | 55 | 70 | 80 | 90 | 88 **Imports of Goods** | 40 | 65 | 70 | 95 | 108 ANS: **Step 1: Calculate Balance of Trade** $$\text{Balance of Trade} = \text{Exports} - \text{Imports}$$ Year | Exports | Imports | Balance of Trade 2018 | 55 | 40 | +15 2019 | 70 | 65 | +5 2020 | 80 | 70 | +10 2021 | 90 | 95 | –5 2022 | 88 | 108 | –20  **Interpretation** • **2018, 2019, 2020:** Trade **Surplus** • **2021, 2022:** Trade **Deficit** • **Highest surplus:** 2018 • **Highest deficit:** 2022	**(3)**
Q30	**Read the following Case Study carefully and answer the questions on the basis of the same:** Census of India is a decennial publication of the Government of India. It is published by Registrar General and Census Commissioner, Under Ministry of Home Affairs, Government of India. It is a very comprehensive source of secondary data. It relates to population size and various aspects of demographic changes in India. Under the Ministry of Home Affairs, Government of India. It may be	**(4)**

	of historical interest that though the population census of India is a major administrative function; the Census Organization was set up on an ad-hoc basis for each Census till the 1951 Census. The Census Act was enacted in 1948 to provide for the scheme of conducting population census with duties and responsibilities of census officers. The Government of India decided in May 1949 to initiate steps for developing systematic collection of statistics on the site of the population, its growth, etc. and established an organisation in the Ministry of Home Affairs under Registrar General and ex-Officio Census Commissioner, India. (a) Data originally collected in the process of investigation are known as __**Primary data._____.** (b) The problem of double conclusion arises in Indirect Oral Investigation. (Direct Oral Investigation/**Indirect Oral Investigation)** (c) Post independence, the first census of India was conducted in the year **1948** (d) Census of India is carried out once in **10 years.**	
Q31	Read the following table carefully and give your comments. **ANS:** **Here are clear, exam-oriented comments based on the given table (Index of Industrial Production):** • **The General Index shows a significant rise from 130.8 in 1996–97 to 189.0 in 2003–04, indicating overall growth in industrial production during the period.** • **Manufacturing, which has the highest weight (79.58%), recorded the maximum increase from 133.6 to 196.6. This shows that manufacturing was the main driving force behind industrial growth.** • **Electricity (weight 10.69%) also showed steady growth, with its index rising from 122.0 to 172.6, reflecting improved power generation and infrastructure.** • **Mining & Quarrying, with a weight of 10.73%, recorded the lowest index values and the slowest growth, increasing from 118.2 to 146.9.**	**(4)**
Q32	Prepare histogram and Frequency Polygon from the following data to show that the area of the histogram and Polygon are the same. ANS:	**(4)**

Industry	Weight in %	1996-97	2003 - 04
General Index	100	130.8	189.0
Mining &Quarrying	10.73	118.2	146.9
Manufacturing	79.58	133.6	196.6
Electricity	10.69	122.0	172.6

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No of Students	5	8	15	11	6	4



Q33 From the following data, relating to playing habits in various age group of 900 students. Calculate coefficient of correlation between age group and playing habits. **(6)**

Age Group	15-16	16-17	17-18	18-19	19-20	20-21
No of students	250	200	150	120	100	80
Regular Players	200	150	90	48	30	12

ANS:

Use **assumed mean method**

- Assumed mean of X = **18**
- Assumed mean of Y = **100**

Let

$dx = X - 18$

$dy = Y - 100$

X	Y	dx	dy	dx^2	dy^2	dx·dy
15.5	200	−2.5	100	6.25	10000	−250
16.5	150	−1.5	50	2.25	2500	−75
17.5	90	−0.5	−10	0.25	100	5
18.5	48	0.5	−52	0.25	2704	−26
19.5	30	1.5	−70	2.25	4900	−105
20.5	12	2.5	88	6.25	7744	−220

Totals:

- $\Sigma dx^2 = 17.5$
- $\Sigma dy^2 = 27948$
- $\Sigma(dx \cdot dy) = -671$

Step 4: Apply Karl Pearson's Formula

$$r = \frac{\sum dxdy}{\sqrt{\sum dx^2 \cdot \sum dy^2}}$$

$$r = \frac{-671}{\sqrt{17.5 \times 27948}}$$

$$r = \frac{-671}{699.2}$$

$$r \approx -0.96$$

There is a **high degree of negative correlation** between **age** and **regular playing habits**.
As **age increases**, the number of **regular players sharply decreases**.

Q34 **34.A** From the data, find Fisher's Ideal Index Number: **(6)**

Items	2024		2011	
	Price	Quantity	Price	Quantity
A	10	60	6	50
B	2	120	2	100
C	6	60	4	60

ANS:

Fisher's Ideal Price Index (Direct Formula)

$$P_{01} = \sqrt{\left(\frac{\sum P_1Q_0}{\sum P_0Q_0}\right)\left(\frac{\sum P_1Q_1}{\sum P_0Q_1}\right)} \times 100$$

Step 1: Prepare the Table

Item	P_0	Q_0	P_1	Q_1	P_0Q_0	P_1Q_0	P_0Q_1
A	6	50	10	60	300	500	360
B	2	100	2	120	200	200	240
C	4	60	6	60	240	360	240
Σ					**740**	**1060**	**840**

$$P_{01} = \sqrt{\left(\frac{1060}{740}\right)\left(\frac{1200}{840}\right)} \times 100$$

$$P_{01} = \sqrt{1.4324 \times 1.4286} \times 100$$

$$P_{01} = \sqrt{2.0463} \times 100$$

$$P_{01} = 1.4305 \times 100$$

Fisher's Ideal Price Index=143.05

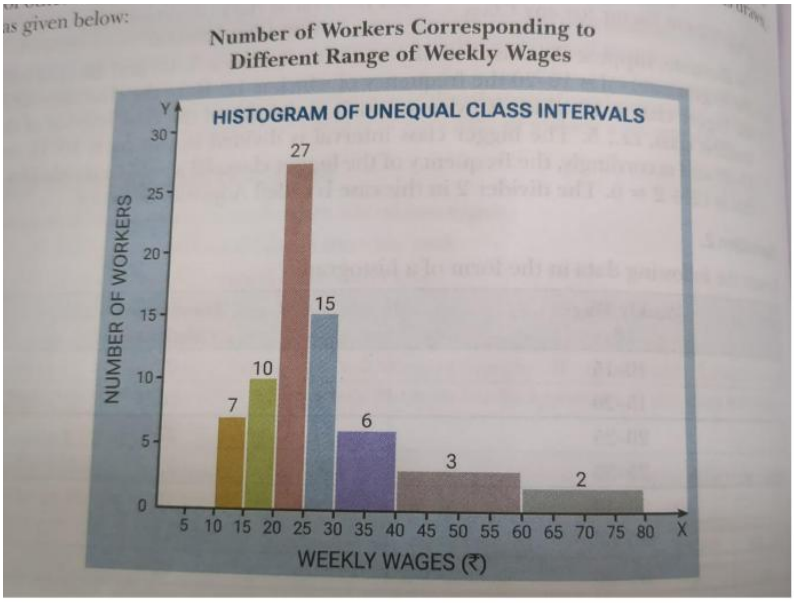
Prices in 2024 have **increased by about 43%** as compared to 2011.

34.B Present the data in the form of a histogram. Check for the unequal Class Interval.

Weekly Wages	10-15	15-20	20-25	25-30	30-40	40-60	60-80
Number of Workers	7	10	27	15	12	12	8

4️⃣ Adjusted Frequency Table

Weekly Wages	Class Width	Frequency	Adjusted Frequency
10–15	5	7	7
15–20	5	10	10
20–25	5	27	27
25–30	5	15	15
30–40	10	12	6
40–60	20	12	3
60–80	20	8	2



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