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## ECONOMICS

## BOOKS - VK GLOBAL PUBLICATION

## ECONOMICS (HINGLISH)

## DIAGRAMMATIC PRESENTATION OF

## DATA BAR DIAGRAMS AND PIE

## DIAGRAMS

Illustration

1. The following table gives data on birth rate
in India according to census survey of different years. Present the information the form of a vertical/simple bar diagram.

| Year | $1951-60$ | $1961-70$ | $1971-80$ | $1981-90$ | $1991-2000$ | $2001-2010$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Birth Rate | 45 | 35 | 30 | 28 | 24 | 20 |

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Essential Praticals

## 1. Make a suitable diagram of the following

## data on polulation in india:

| Year | 1951 | 1961 | 1971 | 1981 | 1991 | 2001 | 2011 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Population (crore) | 36.1 | 43.9 | 54.8 | 68.3 | 84.6 | 102.8 | 121.0 |

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## Long Answer Type Question

1. Give a diagrammatic presentation of the

## following data on india's Exports and Imports:



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## 2. Make a bar diagram of the following data on

## india's population:

| Year | 1971 | 1981 | 1991 | 2001 | 2011 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Population (crore) | 54.8 | 68.3 | 84.6 | 102.8 | 121 |

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3. Make a multiple bar diagram of the

## following data

| Faculty | Number of Students |  |  |
| :--- | :---: | :---: | :---: |
|  | $\mathbf{2 0 1 5 - 1 6}$ | $\mathbf{2 0 1 6 - 1 7}$ | $\mathbf{2 0 1 7 - 1 8}$ |
| Arts | 600 | 550 | 500 |
| Science | 400 | 500 | 600 |
| Commerce | 200 | 250 | 300 |

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4. Following tables shows estimates of cost of production of certain commodities. Present the data in the form of sub divided bar diagram:

| Estimate of Cost | A | B | Coods | D |
| :--- | ---: | ---: | ---: | ---: |
| Raw material | 50 | 40 | 45 | 50 |
| Wages | 40 | 40 | 40 | 40 |
| Fixed costs | 10 | 12 | 15 | 15 |
| Office expenses | 10 | 8 | 10 | 5 |
| Total Cost | 110 | 100 | 110 | 110 |

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## 5. Present the following data in the form of a

## multiple bar diagrm:

- Present the following data in the form of a multiple bar diagram:

| Year | Export (₹ crore) | Import (₹ crore) |
| :---: | :---: | :---: |
| $2013-14$ | $19,05,011$ | $27,15,434$ |
| $2014-15$ | $18,96,445$ | $27,37,087$ |
| $2015-16$ | $17,16,378$ | $24,90,298$ |
| $2016-17$ | $18,52,429$ | $25,77,666$ |

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## 6. What do you mean by a circualr diagram?

## Present the dat on the expenditure of a labour

## family in the form of a circular diagram:

| Items of Expenditure | Food | Clothing | Housing | Fuel and Light | Others |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Percentage of Income Spent | 65 | 15 | 12 | 5 | 3 |

7. Following data relate to the construction of a house in delhi .present the information in the form of a pie diagram:

| Items | Labour | Bricks | Cement | Steel | Timber | Supervision |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentage Expenditure | 25 | 15 | 20 | 15 | 10 | 15 |

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8. For the year 2012-13 and 2013-14 value of gross domestic product at factor cost by the industry of origin is given in the following
table. Prsent the information in the form of pie diagaram showing differences in the percentage contribution of different secotrs between the said years.

| Sector | $\mathbf{y y}$ | Year |
| :---: | :---: | :---: |
| Primary | $\mathbf{2 0 1 2 - 1 3}$ | $\mathbf{2 0 1 3 - 1 4}$ |
| Secondary | 17 | 16.7 |
| Tertiary | 26 | 26 |
| Total | 100 | 57.3 |

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9. Present the following data on the production of food grains in the form of a sub

## divided bar diagrm:

| Year | Wheat | Rice | Gram | Total |
| :---: | :---: | :---: | :---: | :---: |
| 2017 | 30 | 20 | 10 | 60 |
| 2018 | 45 | 30 | 15 | 90 |

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10. Present the following data by a devidation bar diagram showning the difference between sale proceeds and cost of a firm

Year<br>2012-13<br>2013-14<br>2014-15<br>2015-16<br>2016-17<br>2017-18



115
140
145
150
160
170
(₹ in lakh)
100
115
155
140
145
165

1. Bar diagram is a
(i) one dimensional diagram, (ii) two dimensional diagram
(iii) diagram with no dimension, (iv) none of the above

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2. What kind of diagrams are more effective in
representign the following?
(i) Monthly rainfall in a year
composition of the population of delhi by religion
(iii) components of cost in a factory

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3. The indian sugar mills asocitation reproted
that sugar production during the first
fortnight of december 2001 was about 387000
tonnes as against 378000 tonnes during the
same fortnight last year (2000).The off take of
sugar from factories during the first fortnight of december 2001 was 28300 tonnes for internal consumption and 41000 tonnes for exprots as against 154000 tonnes for internal consumption and nil for exports during the same fortnight last season.
(i) present the data in tabular form
(ii) suppose you were to present these data in diagrammatic form which of the diagrams would you use and why?
(iii) Present these data diagrammatically

Production and Off-take of Sugar in India (in tonnes)

| Time Period | Total Production <br> of Sugar | Internal <br> Consumption | Exports |
| :---: | :---: | :---: | :---: |
| First Fortnight of December 2000 | $3,78,000$ | $1,54,000$ | - |
| First Fortnight of December 2001 | $3,87,000$ | $2,83,000$ | 41,000 |

Multiple Bar Diagram


## Others

1. Present the following data in the form of horizontal bar diagram :

Present the following data in the form of horizontal bar diagram:

| Students | A | B | C | D | E | F |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Marks | 300 | 250 | 200 | 150 | 100 | 50 |

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2. The following table shows birth and death
rate in India according to the Census Reports
between 1931-40 to 2016-17 (hypothetical
figures). Present the data in te form of a
multiple bar diagram.

| Year | $1931-40$ | $1941-50$ | $1951-60$ | $1961-70$ | $1971-80$ | $1981-90$ | $1991-2000$ | $2017-18$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Birth Rate | 46 | 45 | 40 | 42 | 41 | 37 | 32.5 | 22.5 |
| Death Rate | 36 | 31 | 27 | 23 | 19 | 15 | 11.5 | 7.3 |

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3. The following table shows Production of

Electricity from different Sources in India during 2014-15 to 2017-18 (hypothetical data).

## Present the data in a sub-divided bar diagram.

(000' Million KWTs)

| Year | Hydro <br> Electricity | Thermal <br> Electricity | Total <br> Production |
| :---: | :---: | :---: | :---: |
| $2014-15$ | 46 | 64 | 110 |
| $2015-16$ | 49 | 72 | 121 |
| $2016-17$ | 48 | 82 | 130 |
| $2017-18$ | 51 | 89 | 140 |

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4. Gross Domestic Product by Industry of origin (at 2004-05 prices) is given for the years 2010-11 and 2011-12. Present this data in terms

## of percentage bar diagram.

Gross Domestic Product by Industry of Origin
(at 2004-05 prices) in 2010-11 and 2011-12

| (₹ crore) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sector | Year <br> $\mathbf{( 2 0 1 0 . 1 1 )}$ | Year <br> $(\mathbf{2 0 1 1 - 1 2 )}$ |  |  |  |
| Primary | $8,22,415$ | $8,47,744$ |  |  |  |
| Secondary | $12,84,941$ | $13,34,249$ |  |  |  |
| Tertiary | $28,29,650$ | $30,61,589$ |  |  |  |
| Total | $49,37,006$ | $52,43,582$ |  |  |  |

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5. Reprent the following data by a deviation bar diagram :

Represent the following data by a deviation bar diagram:

| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Saving/Deficit <br> (in $\mathbf{0 0 0}$ ₹) | 30 | -20 | 10 | 15 | -25 | 20 |

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6. In 2011-12, Net Domestic Pdoduct by Industry
of origin (at 2004-05) is as given below.
Present information in the form of a pic

## diagram.

## Sector

Primary
Secondary
Transport
Finance and Insurance
Community and Social Services
Total

## \% Share

16.2
25.4
27.5
18.1
12.8

100

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## 7. The strength of a school form 2014 to 2018

are given below :

| Year | 2014 | 2015 | 2016 | 2017 | 2018 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Strength of School | 500 | 600 | 500 | 700 | 750 |

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8. Draw a multiple bar diagram to show the

## following data :

| Student | A | B | C |
| :--- | :---: | :---: | :---: |
| Marks in Economics | 40 | 35 | 30 |
| Marks in English | 30 | 15 | 25 |

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## 9. Reprent the following data by a percentage

## bar diagram :

|  | (in '(0)0) |  |
| :--- | :---: | :---: |
| Subjects | $2016-17$ | $2017-18$ |
| Statistics | 25 | 30 |
| Economics | 40 | 42 |
| History | 35 | 28 |

10. Draw a suitable diagram to represetn the following information :

|  | Selling Price per | Quantity | Cost Components (in ₹) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{(\text { unit } ₹)}{ }$ | Sold | Wages | Materials | Miscellaneous | Total |
| X | 400 | 20 | 3,200 | 2,400 | 1,600 | 7200 |
| Y | 600 | 30 | 6,000 | 6,000 | 9,000 | 21,000 |

Also whow the profit of loss as the case may be.
11. Following are the data about the market share of 4 brands of TV sets sold in Panipat and Ambala. Present the data by a pie diagram.

| Brands <br> of Sets | Units Sold <br> in Panipat | Units Sold <br> in Ambala |
| :---: | :---: | :---: |
| Samsung | 480 | 625 |
| Akai | 360 | 500 |
| Onida | 240 | 438 |
| Sony | 120 | 312 |

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12. The following table shows the interest of students of a school in different games:

Represent the data by using a simple bar diagram.

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13. The following table gives the data on the marks obtained by two students ' $A$ and $B$ ' in

## five subjects :

| Subject | Maths | English | Economics | Accountancy | Business Studics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Student A | 75 | 82 | 88 | 90 | 82 |
| Student B | 80 | 78 | 85 | 92 | 88 |

Represent the data by a multiple bar diagram.
14. The following table shows the monthly expenditure of different families on different items :

| Items of <br> Expenditure | Education | Clothing | Food | Rent | Others | Fotal <br> Expenditure |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Family A | 1,500 | 1,000 | 1,250 | 750 | 500 | 5,000 |
| Family B | 1,700 | 850 | 1,200 | 850 | 600 | 5,200 |
| Family C | 1,600 | 700 | 1,500 | 800 | 600 | 5,200 |

Represent the data in the form of a subdivided bar diagram.
15. Represent the following data, using a percentage bar diagram :
(in ₹)

| Items of <br> Expenditure | Food | Clothing | House <br> Rent | Fuel and <br> Lighting | Miscellancous |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Family A | 200 | 100 | 80 | 40 | 80 |
| Family B | 252 | 200 | 100 | 48 | 200 |

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16. The tatste of 500 people of a sociaety for

## different type of food was recorded as follows

| Type of Food | North <br> Indian | South <br> Indian <br> Number of People | 150 | 100 | 125 |
| :--- | :---: | :---: | :---: | :---: | :---: |

Draw a pie diagram to represent the above data.

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17. Which of the following refer to geometric form of data presentation ?
A. Bar diagrams
B. Histogram
C. Pie diagrams
D. Both (a) and (c)

## Answer: d

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18. The other name of pie diagram is :
A. circular diagram
B. bar diagram
C. histogram
D. polygon

# 19. Diagrams which show total of a set of data 

 simultaneously are know as :A. percentage bar diagrams
B. differential bar diagrams
C. deviation bar diagrams
D. multiple bar diagrams

Answer: b
20. Which of the following statements is correct ?
A. Bars may be vertical or horizontal
B. Breadth of the bars remains the same
C. All bars are based on some common
base line
D. All of these

Answer: d
21. Deagrams which are used to compara the net deviation of related varibles with respect to time and location are :
A. deviation bar diagrams
B. simple bar diagrams
C. multiple bar diagrams
D. pie diagrams

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22. Bars are also colledâ $\epsilon_{\mid} \hat{a} \notin|\hat{a} \notin| \hat{a} \epsilon_{\mid}^{!}$.
(rows/columns)

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23. Deigrams which simultaneously presetn total values as well as part values of a set data
 diagrams/sub-divided bar diagrams)
 used generally when the values are of high megnitude. (Differential/Percentage)

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25. Multiple bar diagrams are those diagrams
which showâ $\epsilon_{\mid} \hat{a} \notin|\hat{a} \notin| \hat{a} \notin \mid .$. .sets of data
simultancolusly. (one or more/two of more)
26. 

In
case
of bar diagrams, $\hat{a} €_{\mid}^{\prime} \hat{a} €_{\mid}^{\prime} \hat{a} €_{\mid}^{\prime} \hat{a} €_{\mid}^{\prime} \hat{a} €_{\mid}^{\prime} \hat{a} €_{\mid}^{\prime} \hat{a} €_{1}^{\prime}$ remains the same. (length of the bar/ beradth of the bar)

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27. Bar diagrams are those diagrams in which data are presented in the form of bars or rectangles. (True/False)
28. Bars in bar diagrams are equidistant from each other. (True/False)

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29. Multiple bar diagrams are those diagrams which show two or more seta of data simulaneously. (True/False)

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30. What is meant by bar diagram ?

## D View Text Solution

31. What is a multiple bar diagram ?

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32. What does sub-divided bar diagram show?

## D View Text Solution

33. Deifine percentage bar diagram.

## D View Text Solution

34. Define deviation bar diagram.

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35. What is a cirrcular of pie diagram?

## D View Text Solution

36. What is meant by bar ? What are its features ?

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37. What is meant by simple bar diagram ? What their types?

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38. What is meant by diagrammatic presentation of data ? What its main methods

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39. Which diagrams are known as bar diagrams ? Explain the methods of its construction.

## D View Text Solution

40. What is meant by pie diagram ? Explain the method of its construction.
41. What is meants by bar diagram ? Explain its types.

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42. What are the various types of statistical diagrams ? Explain the geomentric form of diagrammatic presentation.

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43. Write brief notes on the following (use imaginary data for apporpriate
representation): (i) Bar diagram, and (ii) Pie diagram.

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