

**Example 2 :**

Write a paragraph analyzing the data given in the tabular column on the production of food items in 5 states of India during the financial year 2007 -2008 :

State	Rice	(in million tonnes)		Pulses
		Maize	Wheat	
Maharastra	45	25	30	25
West Bengal	10	15	10	15
Tamil Nadu	45	30	30	35
Andhra Pradesh	35	20	25	40
Madhya Pradesh	35	20	25	30

**ANSWER :**

This table gives the data on the production of food items like rice, wheat, maize and pulses in 5 states in India during the financial year 2007 -2008. It is found that Maharashtra Produced 45 million tonnes of rice, 25 million tonnes of maize, 30 million tonnes of wheat and 25 million tonnes of pulses during the financial year 2007-2008. In west bengal 10 million tonnes of rice, 15 million tonnes of maize, 10 million tonnes of wheat and 15 million tonnes of pulses were procured. Tamil Nadu is found to have produced 45 million tonnes of rice, 30 million tonnes of maize, 30 million tonnes of wheat and 35 million tonnes of pulses. In Andhra Pradesh, the production of different food items is found to be as follows: 35 million tonnes of rice, 20 million tonnes of maize, 25 million tonnes of wheat and 40 million tonnes of pulses. When Madhya Pradesh is taken into account, it is found to have produced 35 million tonnes of rice, 20 million tonnes of maize, 25 million tonnes of wheat and 30 million tonnes of pulses. When the production of food items in all these 5 states are taken for analysis, it is found that Tamil Nadu is in the lead in most of the food items. The least producing state is found to be west bengal. Maharashtra is found to be the second in the list, followed by Andhra Pradesh and Madhya Pradesh respectively.





### 3. INTERPRETATION OF GRAPHICS

#### Explanation :

The purpose of using graphics – Bar Graph, Pie Graph, Flow Chart, Table etc. – is to present information in a visual manner and to facilitate easy understanding of the data.

#### Flow Chart :

It gives a step-by-step description of a process. Points to remember in preparing a flow chart:

- (i) Describe each and every step in a separate block/box.
- (ii) Each block should have a verb, mostly passive form. e.g. Ore is taken, crushed, mixed, etc.
- (iii) It should be in the right sequence of occurrence.
- (iv) Each block should be connected by straight lines or arrows.

#### Bar Chart :

Bar chart show evenly spaced bars extending horizontally or vertically. It can present the relationship of numbers in two or three dimensions. In drawing a bar graph one has to

- (i) draw the 'X' axis and 'Y' axis and mention what they represent.
- (ii) represent the scale factor evenly.
- (iii) represent the different items by shading in different ways.
- (iv) give the legend (Key to bars)

#### Pie chart :

They are partitioned circles in which each partition represents a percentage or proportion. The first segment usually begins at a line from the centre to the top of the circle. The segments are arranged in alphabetical order and proceed in a clockwise direction. Each part is made distinct with the use of different shades or designs.

Points to remember while drawing a pie chart:

- (i) Begin the first segment at a line from the centre to the top of the circle.
- (ii) Proceed in a clockwise direction.
- (iii) Mention the explanatory information inside the segment or draw an arrow from the border of the circle and explain it there.

#### Interpretation of graphics :

While interpreting bar charts, one has to use appropriate expressions for comparison and contrast such as 'while', 'however', 'but', 'yet', 'on the other hand', 'similarly', 'in contrast', etc. Likewise, a pie chart should also be interpreted focusing on the percentage of segments. While interpreting a flow chart, care must be taken to use the appropriate connective words such as 'initially', 'first', 'next', 'then', 'as a result of', 'consequently', 'finally', etc., as the flow chart represents the sequence of a process, in a step-by-step method. All interpretations of a flow chart should be in present passive.

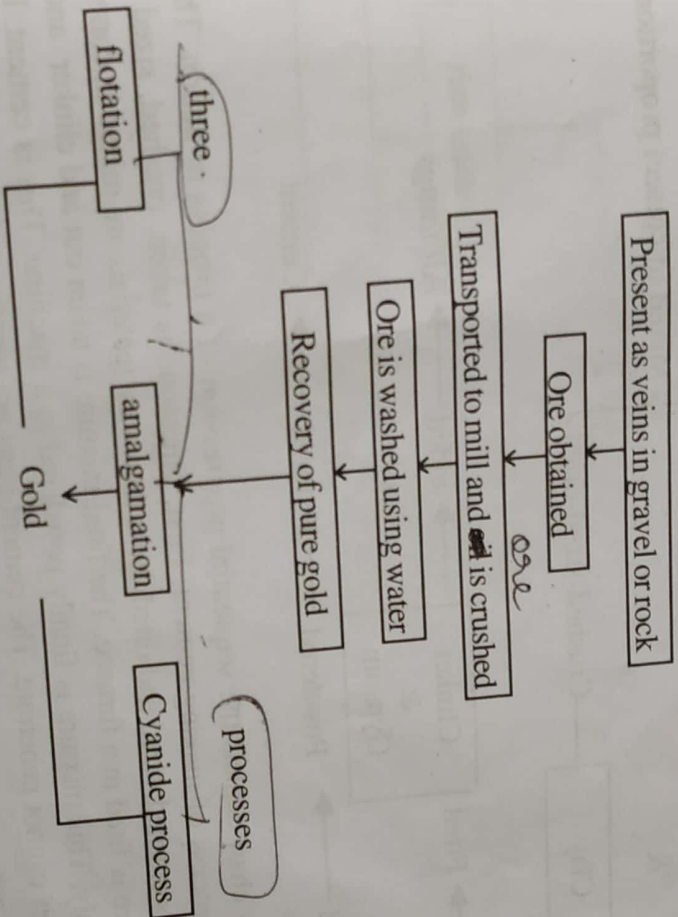


## Example 1:

Study the flow chart carefully and write out a short paragraph :

(AU, Tirunelveli - Jan, 2010)

### Extraction of gold



## Answer:

This flow chart describes the process of extraction of gold from its ores. Gold ore is found present as veins in gravel or rock. This rock is broken using explosives and the ore is obtained. From there, it is transported to mills and the ore is crushed. Then the ore is washed using a stream of water. Then, gold is recovered from this ore. The ore obtained is impure in nature. There are three processes by which pure ore is got. The first method is called flotation. The second method is amalgamation and the third process is carried out using cyanide. Thus, pure gold is obtained.





(B) Table

Sample 1:

Write a paragraph analyzing the data given in the tabular column on cigarette smoking habits published by a magazine after a survey.

(AU Trichy, Jan 2010)

Cigarette smoking habits by gender %			
No. of Cigarettes	All	Men	Women
20+ a day	11	13	9
10 - 19 a day	11	11	10
Less than 10 a day	8	7	10
Given up	27	30	24
Never smoked	43	39	47

### ANSWER :

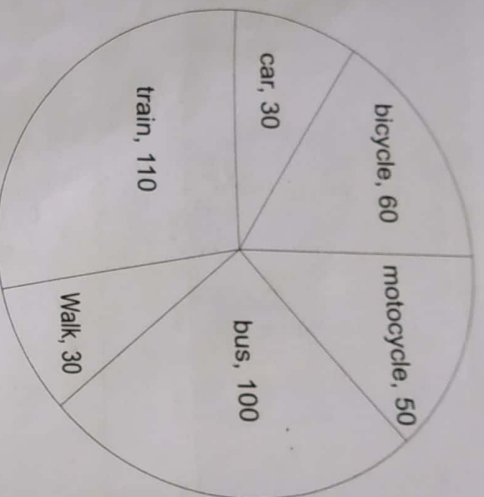
This table gives data on cigarette smoking habits published by a magazine after a survey. When people smoking more than 20 cigarettes are taken into account, it is found that 13% of men and 9% of women are involved. On the whole, it is found that 11% of people are addicted to smoking. When people smoking 10 to 19 cigarettes per day is taken into account, it is found that 11% of men and nearly equal ie. 10% women are found to smoke. Here also, when the overall percentage is considered smoking habit is found in 11% of the population. 7% of men and 10% of women are found to smoke less than 10 cigarettes a day. Here, the overall percentage is found to be 8%.

## (D) Pie Chart

**Example :**

Refer to the chart given below and write a paragraph about the modes of transport used by 500 employees of SS oil and Co. to and fro their homes.

(Au, Tirunelveli, Jan-2010)

**ANSWER :**

The pie chart gives details about the different modes of transport used by 500 employees of SS Oil and Co. for commuting to and fro from their homes. It is observed from the chart that 50 workers use motorcycle. 100 are found to use the bus. Another 30 are noted to walk the distance. 110 are observed to commute by train. Car is used by 30 followed by 60 found to use the bicycle. The remaining 120 workers are found to live in the campus itself. On analysing the chart, it is found that the public transport i.e. the bus and train are used by more number of people. Only a few are noted to use the luxury modes of transport like car and motorcycles. The middle class people are found to use bicycles. Those who live nearby are noted to walk to the work place. Thus, this pie chart gives information about the mode of transport used by workers.



Mr. Gupta is not spending his income wisely. Perhaps he believes in enjoying life without much thought for the future. That is why he spends 60% of his monthly income on food and entertainment. To make life comfortable, he lives in a house for which he pays 25% of his monthly income as rent. It seems he discounts the future heavily. That is why he saves only a meagre percentage (5%) of his monthly income. If Mr. Gupta spends less on food, entertainment and rent, and saves more, he can have a secure and comfortable future.

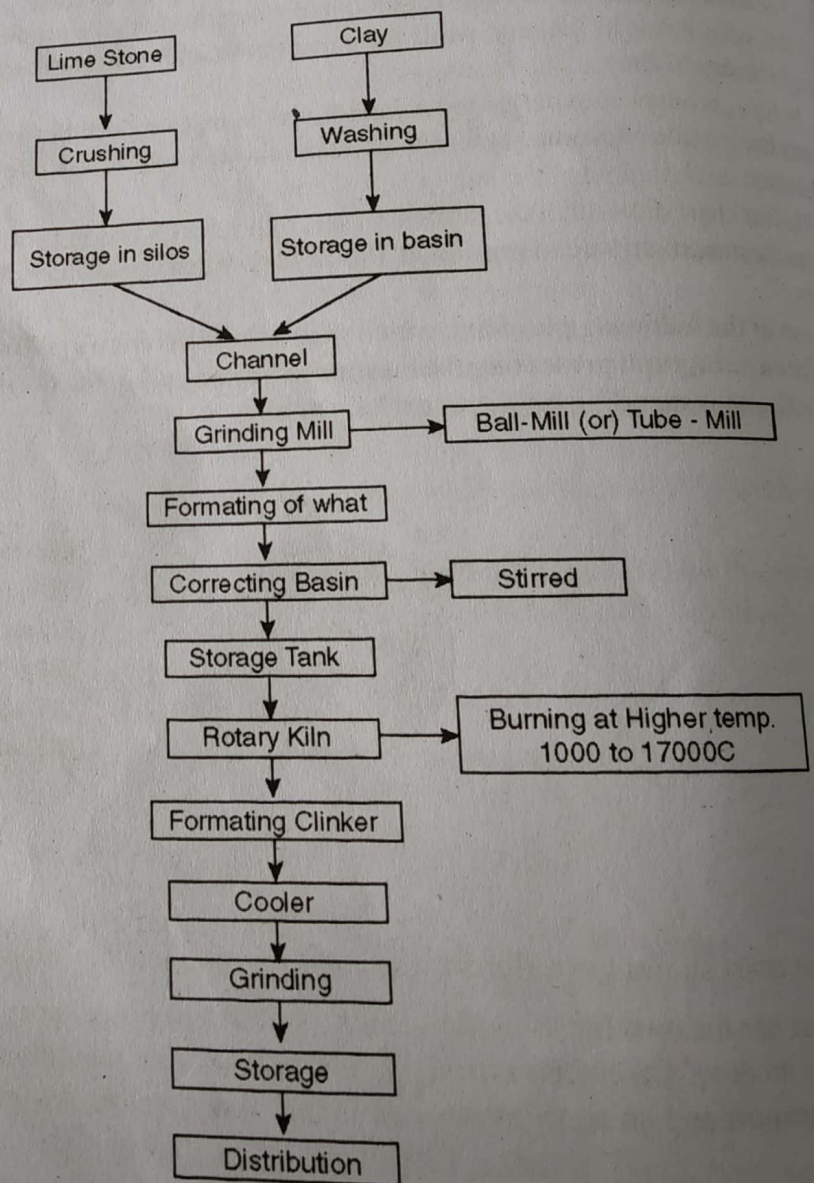
### FLOW CHARTS

The following sequential expressions and connectives are used in describing a process or explaining a flow chart.

at first	then	until	thereafter	obtained	from
initially	finally	derived	from	subsequently	on

#### 8. Flow Chart:

#### Stages in Making Cement





Answer

red

ing at Higher temp.  
1000 to 1700°C

### The Process of Making Cement

The flow chart describes the process of making cement. The two raw materials used in the process are limestone and clay. Limestone is crushed, sized and dried. After that, it is stored in the storage silos. Similarly, clay is crushed, sized, dried and stored in the storage basin. The crushed limestone and clay are mixed in correct proportions. The formation is known as slurry. The slurry is fed into the rotary kiln where it is burnt at a higher temperature (1000 to 1700°C). A chemical reaction takes place and clinkers are formed. Now gypsum is added to the clinker. The mixture is powdered and sent to the storage silos. Eventually the finished product is ready in the form of cement. In this way cement is made.

10. Given below is a process description. Read it and draw a flow chart representing the process described.

Rayon is a man-made fibre. It is, infact, a reconstituted natural fibre-cellulose. Rayon is made by dissolving cellulose in a solution of sodium hydroxide, or caustic soda, as it is usually called. The cellulose is obtained from shredded wood pulp. The dissolved cellulose is formed into threads by forcing it through a spinneret in a setting bath of dilute sulphuric acid. The threads are drawn from the setting bath, wound on reel, washed, then dried on a heated roller, and finally wound on to a bobbin. (M.Q.P)



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Sales Figures of Products A and B During January-June

This bar chart describes the sales figures of products A and B for the period from January to June in respect of the month.

In January, 3000 units of product A were sold whereas only 1000 units of product B were sold in the same period. Product A sold three times as much as product B.

The situation improved in February when the sale of product A increased by 1000 when it touched the 4000 mark, which was the highest in the entire six month period, from January to June. Similarly, the sale of product B shot up to the 3000 mark.

In March, both products A and B were in equal demand. The demand for product A became less, from 4000 in February to just 3,000 in March. On the other hand, the demand for product B was the same as it was in February, namely, 3000.

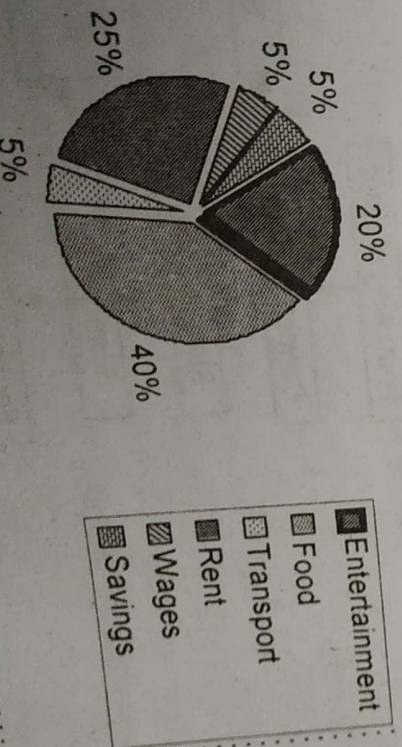
The figures for the month of April present a different picture. The demand for product A further decreased about 2600 whereas the demand for product B was more than what it was in March. The demand for product further diminished while the demand for product B further increased.

The month of May shows appreciation in demand for both the products. The sale of product A increased 3,000, what it was in January, while the sale of product B was above the 3,000 mark, the highest during the period January to June.

In June, product A experienced a further rise in its sale, well beyond 3,000, next only to what it was in January but the sale of product B for the first time showed a decreasing trend, but still firm at 3,000, what it was in February.

The bar chart shows that the maximum sale of product A was in February when it touched the 4,000 mark, whereas the maximum sale of product B was in May, when it was above 3000. It was a big leap from 1,000 in January.

Look at the following pie chart, which shows the different ways Mr. Gupta spends his monthly income. Write a paragraph presenting the information contained in the chart. In about 100 words, write whether Mr. Gupta is spending his income wisely or not.

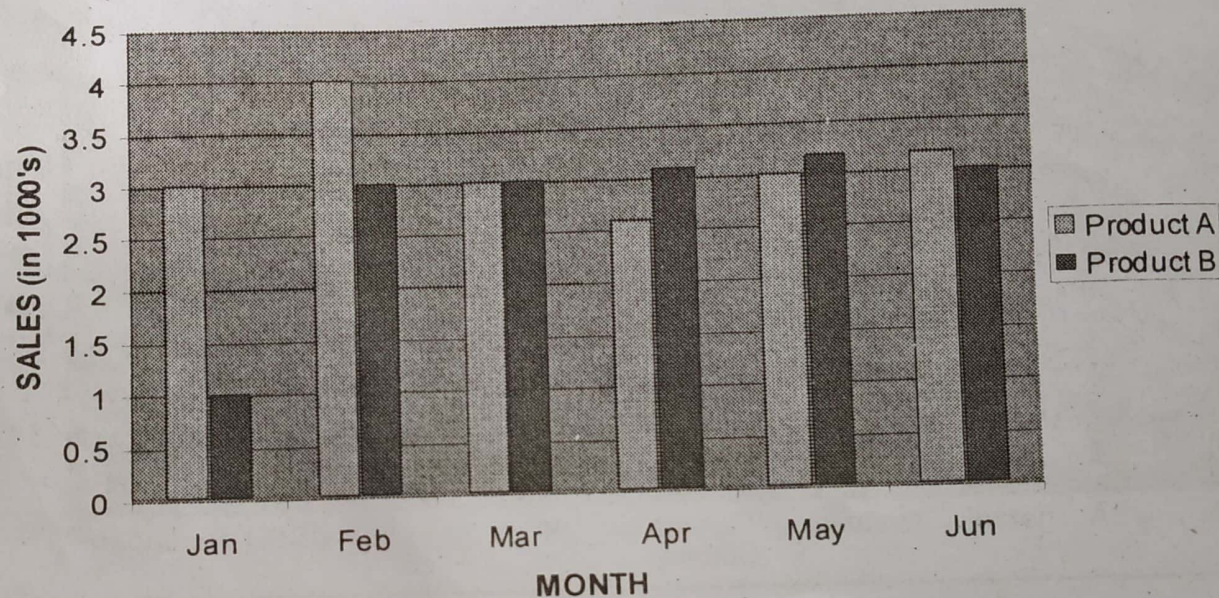




Egypt spends the maximum percentage of its total expenditure on defence, namely, 45% whereas Japan spends only 7 to 8% of its total expenditure on defence.

6. Look at the following bar chart which describes the sales figures of products A and B for the period from January to June in respect of a firm. Write a paragraph presenting the information contained in it using expressions of comparison.

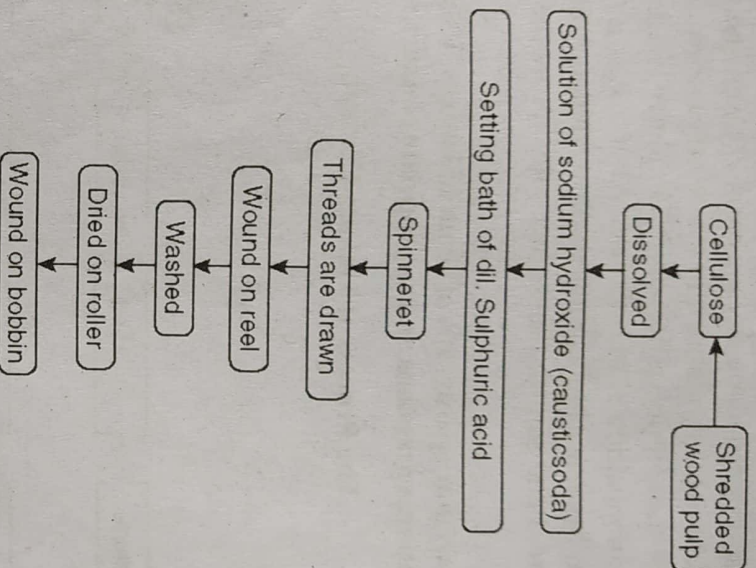
SALES FIG. JAN-JUN





### The Process of Making Rayon

RAYON (Man-made fibre, reconstituted fibre - cellulose)



11. Using the information provided in the given text, draw a flow chart describing the different stages involved in the making of coins. Remember to give an appropriate title to your flow chart:

(Apr./May 2005)

Coins are manufactured in a factory known as a mint. There are three mints in India: Bombay, Calcutta and Hyderabad. Production of coins at the mints is a complete process. It starts with the buying of unmixed metals and their testing by the Assay Department. Then the metals are alloyed in oil-fired or electric arc furnaces, and cast into ingots 40 cm wide, 15 cm thick and 6 m long. These ingots are reheated until the temperature is hot enough for hot rolling. During this stage, the ingots pass through a series of rollers until they form long, thin sheets which are the thickness of a coin. From these thin strips, blank discs are punched. These are the basic raw materials for the manufacture of coins. The blanks are heated to soften them, and they are rolled so that the rim is raised. Finally they are stamped with the design of the coin. At every stage, defective pieces are carefully sorted out, and (with the frequent checking and returning points) strict quality control is maintained. Rejects are returned to the alloying stage, together with the waste from the alloy strip.