

**Krishna chandracollege**  
**Dept of Geography**  
**Sub.: Geography Paper: CC-4(Practical)**  
**SEM : 2<sup>nd</sup> SEM HONS.**  
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**DOT DISTRIBUTION MAP**

A **dot distribution map**, or **dot density map**, is a **map** type that uses a **dot** symbol to show the presence of a feature or a phenomenon. Dot maps rely on a visual **scatter** to show spatial pattern. The dot maps are drawn to show the distribution of phenomena such as population, cattle, types of crops, etc. The dots of same size as per the chosen scale are marked over the given administrative units to highlight the patterns of distributions.

**Types:**

i. **One-to-one**

Dot-density map and dot-distribution maps are the same thing. These type of maps can show the population of people in a country, city, state, etc. In a one-to-one dot map, each dot represents one single recording of a phenomenon. Because the location of the dot corresponds to only one piece of **data**, care must be taken to ensure that the dot is represented in its correct spatial location. Inaccuracies in the location of the dot can misrepresent the data being mapped.

ii. **One-to-many**

In a one-to-many, or dot-density map, each dot on the map represents more than one of the phenomena being mapped. The number of data represented by each dot is determined by the map author and may be the product of data availability.

**Advantages<sup>of</sup> dot distribution maps :**

- i. Dot maps are advantageous when mapping phenomena that change smoothly over a space, as the dot maps will visually match the phenomena.
- ii. Dot maps are easy readable.
- iii. Are perfectly suitable to show density distribution.

**Disadvantages<sup>of</sup> dot distribution maps :**

- i. One such disadvantage is that the actual dot placement may be random. That is, there may be no actual phenomenon where the dots are located.
- ii. the subjective nature of the dot size and spacing could give the map a biased view. Inappropriately sized or spaced dots can skew or distort the message a map attempts to communicate.
- iii. If the dots are too numerous, it may be difficult for the reader to count the dots. This can cause the map to be ineffective in communicating its message.
- iv. One of the disadvantages of dot density maps is that it's **difficult to extract quantities from it.**

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## Sphere Diagram

A **sphere** is a perfectly round three dimensional **shape** similar to a round **ball** you might play soccer or basketball with. All points on the surface of a **sphere** are the same distance from the center. A **sphere** is perfectly symmetrical around its center. Geometrically, a sphere is defined as the set of all points equidistant from a single point in space.

### Properties of the sphere

We will specify the location of a point on the sphere in terms of latitude and longitude. These must be defined with respect to some reference point R on a fixed reference great circle E called the equator. Corresponding to E there are two poles which we will label with N and S and refer to as the north and south poles. The equator splits the sphere into two hemispheres, called the northern and southern hemispheres.

### The important properties of the sphere are:

- A sphere is perfectly symmetrical
- It is not a polyhedron
- All the points on the surface are equidistant from the centre.
- It does not have a surface of centres
- It has constant mean curvature
- It has a constant width and circumference.

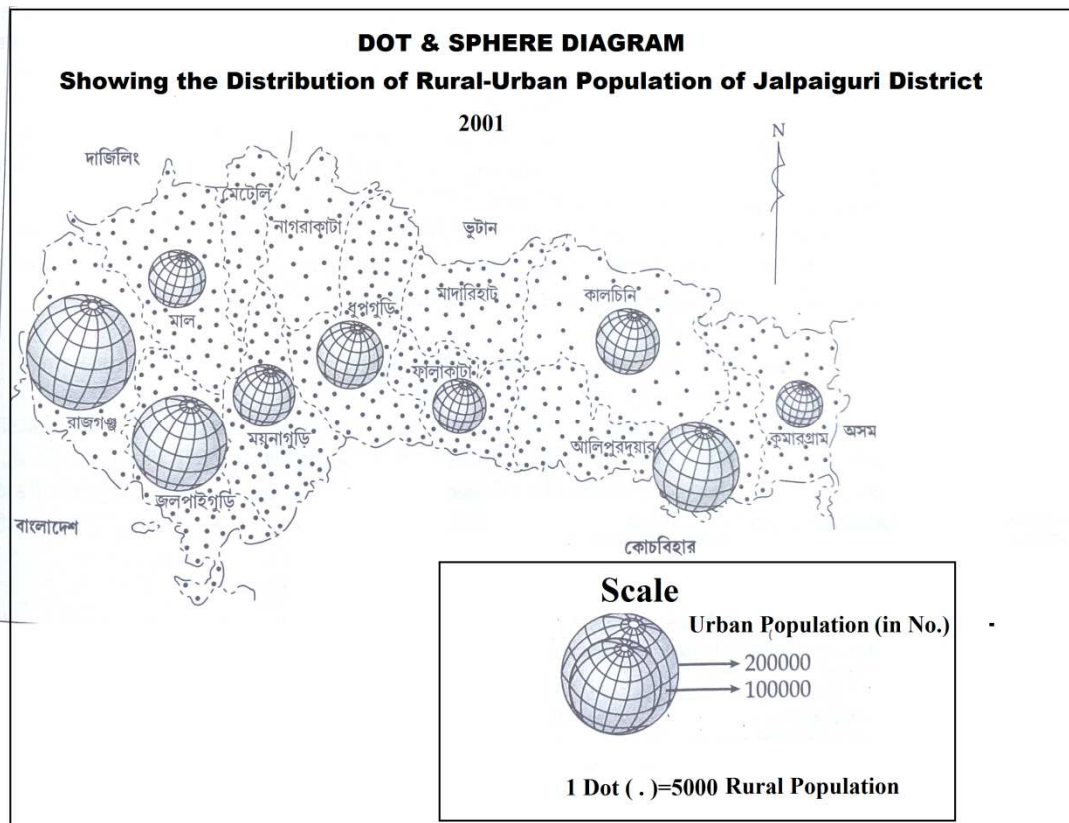
**Sphere**, In geometry, the set of all points in three-dimensional space lying the same distance (the radius) from a given point (the centre), or the result of rotating a circle about one of its diameters. The components and properties of a sphere are analogous to those of a circle. A diameter is any line segment connecting two points of a sphere and passing through its centre. The circumference is the length of any great circle, the intersection of the sphere with any plane passing through its centre. A meridian is any great circle passing through a point designated a pole. A geodesic, the shortest distance between any two points on a sphere, is an arc of the great circle through the two points. The formula for determining a sphere's surface area is  $4\pi r^2$ ; its volume is determined by  $(\frac{4}{3})\pi r^3$ .

Population 2001			
Sl.No	C.D.Blocks	Rural	Urban
1.	Jalpaiguri	180234	100212
2.	Maynaguri	227382	27086
3.	Dhupguri	318379	37998
4.	Rajganj	101955	185660
5.	Meteli	105861	-
6.	Nagrakata	119556	-
7.	Maal	241499	23212
8.	Phalakata	216425	18801
9.	Kumargram	154799	12551
10.	Matherihat	185499	-
11.	Kalchini	160547	38664
12.	Alipurduar	254095	88942

প্রতিটি C.D. ব্লকের গ্রামীণ জনসংখ্যা নির্দেশের জন্য একটি বিন্দু = 5000 গ্রামীণ ধরা হল।  
সুতরাং, জলপাইগুড়ির 180234 গ্রামীণ জনসংখ্যার জন্য বিন্দুর সংখ্যা হবে—  
 $180234 \div 5000 = 36$  টি বিন্দু।  
আবার C.D. ব্লকগুলির পৌর জনসংখ্যা নির্দেশের জন্য গোলক অঙ্কন করা হবে।  
সূত্র, গোলকের ব্যাসার্ধ  $(r) = 0.62026 \times 3\sqrt{P_U}$   
(এখানে  $P_U$  = পৌর জনসংখ্যা)

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Sl.No	C.D.Blocks	Rural Population	No. of Dots (Ru.Pop+5000)	Urban Population	$r = 0.62026 \times \sqrt[3]{pu}$	Radius in Scale (1cm=40 unit)
1.	Jalpaiguri	180234	36	100212	28.81	0.72 cm
2.	Maynaguri	227382	45	27086	18.63	0.46 "
3.	Dhupguri	318379	64	37998	20.85	0.52 "
4.	Rajganj	101955	20	185660	35.38	0.88 "
5.	Meteli	105861	21	—	—	—
6.	Nagrakata	119556	24	—	—	—
7.	Maal	241499	48	23212	17.69	0.44 "
8.	Phalakata	216425	43	18801	16.49	0.41 "
9.	Kumargram	154799	31	12551	14.41	0.36 "
10.	Matherihat	185499	37	—	—	—
11.	Kalchini	160547	32	38664	20.97	0.52 "
12.	Alipurduar	254095	51	88942	27.68	0.69 "
<b>লিখিত স্কেলের জন্য</b>						
1.	—	—	200000	36.27	36.27	0.90 "
2.	—	—	100000	28.78	28.78	0.71 "



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