Chapter - 13 REPRESENTATION OF STATISTICAL DATA

(Skill Based Questions (10 Marks)

SINGLE LINE GRAPH

1. Construct a simple line graph by using the data given below. Growth of population in India

Year	population(in millions)
1961	439.23
1971	548.16
1981	683.33
1991	843.93
2001	1020.1
2011	1210.1

2. Construct a simple line graph, by using the following data India: production of iron ore

Year	Production (in million tones)
1960-61	18.7
1970-71	54.3
1980-81	41.6
1990-91	34.9
2000-01	80.6
2010-11	136.4

3. Construct a simple line graph, by using the following data Production of gold in India

Year	Production (in kg)
1961	4868
1971	3656
1981	2495
1991	1508
2001	2105
2011	2615

Year	Density(per sq km)
1961	142
1971	177
1981	216
1991	267
2001	325
2011	382

4. Construct a simple line graph, by using the following data Density of population in India.

5. Construct a simple line graph, by using the following data to show the trend in the production of Bauxite in India

Year	Production (in 000tonnes)
1961	476
1971	1517
1981	1955
1991	4948
2001	7993
2011	15150

6. Construct a simple line graph, by using the following data. Manganese production in India

Year	production(in million tonnes)
1961	14.05
1971	18.41
1981	15.32
1991	13.88
2001	15.95
2011	23.22

7. Draw a simple line graph to show the mean monthly temperature at New Delhi by using the following data

Month	Jan	Feb	Mar	Apr	may	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temp. (O ⁰ c)	13.8	16.6	21.6	27.8	33.2	33.6	30.9	29.8	29.2	25.7	19.7	15.2

DOUBLE LINE GRAPH

1. Construct a double line graph, by using the following data. India: Birth and Death rate (per thousand)

Year	Birth rate	Death rate
1961	41.1	18.9
1971	36.9	14.9
1981	33.9	12.5
1991	29.3	9.8
2001	26.1	8.7
2011	22.2	6.4

 Construct a double line graph, by using the following data. India- Literacy rate (in %)

Year	Male	Female
1961	40.40	15.24
1971	45.95	21.97
1981	56.27	29.75
1991	64.11	39.29
2001	75.85	54.16
2011	82.10	65.50

3.Draw a double line graph to represent the data given below. Area and production of food grains in India.

Year	Area (Mn.Ha)	Production (Mn. Tons)
2004-05	120.1	198.4
2005-06	121.6	208.6
2006-07	123.7	217.3
2007-08	124.1	230.8
2008-09	122.8	234.5
2009-10	121.3	218.1
2010-11	126.7	244.5
2011-12	124.8	259.3
2012-13	120.8	257.1

4. Construct a double line graph to show the following data India : Jowar and Bajra Production

Year	Jowar (Mn. Tons)	Bajra (Mn. Tons)
2004-05	7.24	7.93
2005-06	7.63	7.68
2006-07	7.15	8.42
2007-08	7.93	9.97
2008-09	7.25	8.89
2009-10	6.70	6.51
2010-11	7.00	10.37
2011-12	5.98	10.25
2012-13	5.28	8.74

5. Draw a double line graph for the following data

The mean monthly temperature of Chennai and Shimla (in degree C)

Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Chennai	24.6	25.8	27.9	30.5	32.7	32.5	30.8	30.2	29.7	28.1	25.9	24.9
Shimla	5.2	6.7	10.6	15.2	19.2	20.3	18.3	17.7	16.9	14.4	11.2	7.8

6. Draw a double line graph for the following data

The mean monthly temperature of Hubballi and Mysuru (in degree C)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hubballi	23.9	23.7	26.5	28.5	27.8	24.6	23.2	22.9	23.7	24.2	22.8	21.8
Mysuru	21.3	23.6	26.1	28.0	27.4	24.6	23.9	26.5	23.9	23.7	22.2	21.1

SIMPLE/SINGLE VERTICAL BAR GRAPH

1. Construct a simple bar graph for the following data.

Karnataka- decadal sex ratio

Year	Women(/1ooomales)
1961	959
1971	957
1981	963
1991	960
2001	965
2011	968

2. Represent the following data by constructing a simple vertical bar graph.

India- Decadal sugarcane production

Year	production(in million tons)
1961	110.00
1971	126.36
1981	156.24
1991	241.04
2001	286.00
2011	310.00

3. Show the following data by constructing a simple vertical bar graph .

Length of national highways in India (in km)

Year	N. Highway
1961	21712
1971	23838
1981	31671
1991	33650
2001	57737
2011	70934

4. Use the following data to draw a single bar graph for representing Male literacy rate in Karnataka (in %)

	1
Year	Percentage
1961	36.2
1971	41.6
1981	48.8
1991	67.3
2001	76.1
2011	82.9

5. Draw a single bar graph to show the following data

Karnataka- selected district-wise density of population (per sq km)-2011

Districts	Density
Ramanagar	303
Bengaluru rural	441
Chikkaballapur	298
Kolar	384
Yadagir	224
kalaburgi	233

States	Production(%)
West Bengal	15.80
Andhra Pradesh	12.71
Uttar Pradesh	19.91
Punjab	10.86
Odisha	7.31
Tamil nadu	7.08

6. Data in selected state-wise rice production (in %)is given below, with the help of this draw a simple bar graph.

7. By using the following data, construct a bar graph. India- Selected state-wise wheat production 2014-15

States	Production (Mn.tons)	
Uttar Pradesh	25.22	
Punjab	15.78	
Haryana	11.06	
Madhya Pradesh	18.18	
Rajasthan	9.87	
Bihar	4.05	

8. By using the following data, construct a single bar graph. India- selected state-wise sugar production 2014-15

States	Production
	Mn tons.
Maharashtra	81.8
Uttar Pradesh	138.5
Karnataka	41.9
Tamil Nadu	24.5
Andhra Pradesh	13.2
Gujarat	14.1

9. Construct a simple bar graph by using the following data

Karnataka- selected district – wise area under rice during, 2014-15

Districts	Area (in 000ha.)
Biotificto	
Ballari	118.7
Davanagere	136.7
Mysuru	105./0
Raichur	162.6
Shivamogga	120.6
Mandya	67.6

DOUBLE VERTICAL BAR GRAPH

1. Construct a double vertical bar graph, by using the following data. India- urban and rural population (in %)-2011

Year	Rural	Urban
1961	81.7	18.3
1971	79.8	20.2
1981	76.3	23.7
1991	74.3	25.7
2001	72.2	27.8
2011	67.4	23.6

2. Construct a double bar graph, by using the following data.

India- age structure (in %)

Year	Children	Adults
1961	41.00	53.30
1971	41.40	53.40
1981	39.70	54.10
1991	36.50	57.10
2001	37.30	55.10
2011	31.10	63.60

Year	Iron ore	Manganese
1961	18.7	14.05
1971	34.3	18.41
1981	41.6	15.32
1991	54.9	13.88
2001	80.6	15.95
2011	136.4	23.22

3. Construct a double bar graph, by using the following data. India- Trend in iron and manganese ore production (in million ton)

4. Show the following data by a double bar graph

Karnataka- selected district-wise density of population (per km2)

Districts	2001	2011
Ramanagar	288	303
Bengaluru (rural)	380	441
Chikkaballapura	273	298
Kolar	346	384
Yadagiri	183	224
Kalaburgi	198	233

5. Construct a double bar graph to show the following data. Karnataka- selected district-wise literacy rate (in %)-2011

Districts	Male	Female
Mangaluru	93.31	84.80
Haveri	83.89	70.65
Tumakuru	82.05	66.45
Mandya	78.14	62.10
Koppal	78.21	56.22
Bagalkot	80.16	58.55

6. Construct a double bar graph, by using the following data.

Decadal growth of population in Karnataka (selected district)in percentage

Districts	2001	2011
Ballari	22.41	24.92
Kalaburgi	21.76	17.94
Shivamogga	13.10	6.88
Vijayapura	17.51	20.38
Mysuru	15.75	13.39
Kolar	14.46	11.04

7. Construct a double bar graph, by using the following data.

Karnataka: selected district-wise sex ratio (per thousand male population)

Districts	2001	2011
Belagavi	960	969
Bagalkot	980	984
Vijayapur	950	954
Bidar	949	952
Raichur	983	992
Koppal	983	988

8. Construct a double bar graph, by using the following data.

Karnataka: selected district-wise male and female population (in lakh)

Districts	Male	Female
Haveri	8.2	7.8
Shivamolgga	8.8	8.6
Mysuru	15.1	14.8
Bengaluru	50.2	46.0
Ballari	12.4	12.0
Kalaburgi	13.0	12.6

PIE OR WHEEL DIAGRAM

1. Show the following data by a Pie diagram India- Types of railway gauges (in %)

Types	Percentage
Broad gauge	86
Meter gauge	10
Narrow gauge	4

2. Construct a pie diagram to show the area under selected crops in India. (in lakh hectare)

Crops	Area
Food crops	35
Cereals	16
Oil seeds	12
Commercial crops	17

3. Construct a pie diagram by using the following data.

Types of national highways in India (in %)

Types	Percentage
Single lane road	21
Double lane road	54
Four/six/eight lane road	25

4. Draw a pie diagram by using the following data,

Area of irrigation by different sources (in million hectares)

Sources	Area
Wells	36
Canals	16
Tanks	2
Others	6

5. Construct a pie diagram for the following.

India- selected state-wise rice growing area (in lakh hectare)

States	Area
Karnataka	14
Panjab	26
Tamil Nadu	20
Uttar Pradesh	60

6. By using the following data, construct a pie diagram. Selected state- wise sugar factories in India

States	No factories
Karnataka	50
Gujarat	18
Andhra Pradesh	33
Bihar	09

7. Construct a pie diagram for the following. Production of natural gas in India(in %)

Places	percentage
J V C (pvt ltd)	44
Mumbai	37
Assam	05
Gujarat	05
Others	09

Types of land use	Area
Forests	69
Non-agriculture land	26
Follow land	25
Net sown area	140

8. Use the following data to construct a pie diagram. Types of land use pattern in India (in million hectare)

9. Represent the following data by a pie diagram. State wise coffee production in India (in %)

States	percentage
Karnataka	72
Kerala	06
Tamil Nadu	20
Others	02

10. By using the following data, construct a pie diagram. India: age structure

Groups	Percentage
Children	31
Adults	63
Age old	06

For blind students

- 1. Explain the sources of primary data.
- 2. Explain the sources of secondary data.
- 3. Explain the components of GIS.
- 4. Explain the functions of GIS.
- 5. Explain the Vector and Raster formats.
- 6. What is GPS? Explain the segments of GPS.
- 7. Explain the applications of GPS.
- 8. What is remote sensing? Explain the elements of Remote Sensing.